Consolidated Annual Financial Report 2018

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A. Foreword by the Management Board

Ladies and Gentlemen,
Dear Shareholders,
Dear Employees,

Looking back on financial year 2018 we see an ambivalent picture. On the one hand, we recorded further progress within the implementation of our strategy, but did not achieve our financial targets for sales and EBITDA. On the other, and worth a positive mention, individual markets developed positively in financial year 2018 and we reached significant milestones on the way to the targeted market approval for our innovative and pioneering silver coating technology.

After a successful first year as a pure player in trauma in 2017, when we achieved trauma sales growth of 20%, 2018 as a whole fell short of our expectations. Development in North America was especially disappointing: We could not sign further contracts with global partners in this market, and distribution business was temporarily burdened by the loss of certain distributors and clinics. This shortfall in sales could not be offset on a short-term basis elsewhere. In our home market Germany, in contrast, we registered a pleasing development with double-digit growth. Here, our sales activities of recent years show effect. A further good development we see also in our international business. In our key markets Europe and BRICS we could realize significant growth. Growth drivers were both the development of business with existing customers and the acquisition of new customers.

With a view to the EBITDA development, we could not achieve an improvement in financial 2018 and fell short of our expectations. In spite of an increase in total operating performance and an unchanged level in other expenses, the reduced proportion of high-margin sales from North America along with substantial one-time costs incurred in connection with, for example, extended measures for the step-up strategy implementation, weighed on the earnings side.

With respect to our LOQTEQ® product family, the focus of our development activities was on the further completion of the portfolio, including various polyaxial LOQTEQ® systems. While some of these systems are already approved for the US market, we worked on registration for the European market last year. For other products, such as the foot and periprosthetic system, approval applications were submitted to the US Food and Drug Administration. Last but not least, the development of sterile packaging for implants was pushed further.

Regarding our innovative antibacterial silver coating technology, we reached important milestones in financial year 2018 on the way to the start of the human clinical study as prerequisite for the targeted market approval. In an animal study undertaken with the renowned AO Research Institute in Davos we achieved convincing results, proving that the silver coating developed by *aap* has no negative effect on bone healing, which was one of the regulatory authorities' central requirements. Before the year ended we submitted the application to conduct a human clinical study for our silver coating technology at the Federal Institute for Drugs and Medical Devices (BfArM) and are now in an intensive exchange with the Federal Institute. Various global orthopaedic companies show keen interest in these developments and they have reaffirmed their interest in the innovative silver coating technology in current talks.

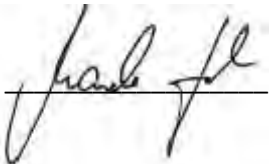
We made further substantial progress with our quality improvement program Quality First. The company-wide program was continued to be consistently implemented in the reporting year and is now being followed by the Fit-4-MDR transfer program designed to ensure a comprehensive and efficient transition to the significantly more stringent requirements of the MDR.

Last but not least, we extended our compliance management system in the third quarter and complemented it with further instruments. Our new Code of Conduct is a binding, company-wide code of behaviour designed to offer all our employees specific guidelines for their day-to-day activities. In addition, an electronically protected whistleblowing system has been implemented to give our employees and external stakeholders an opportunity to notify us safely of alleged irregularities in a protected manner. This system, like the Code of Conduct, can be accessed via our website.

For 2019 we have set ourselves ambitious targets. We aim to achieve dynamic sales growth and a significant improvement in earnings again. Concrete, we strive for a sales growth rate of between 20% and 40%, whereby all markets shall contribute to the planned sales increase. We are especially confident for the North American market that with the measures already initiated it will be possible to show corresponding sales dynamics in financial year 2019 again. That is to be accompanied, also due in part to strict cost management, by a noticeable improvement in our EBITDA. Another important objective for 2019 is the start of the human clinical study for the market approval of our antibacterial silver coating technology. Based on these targets, measures to strengthen the financial base are necessary that were adopted in mid-April and are now to be implemented at short notice. These include, in addition to a capital increase with subscription rights, two further external financings. With the inflows from these measures, the planned sales growth and further payment inflows, such as from technology-based transactions and public funding, we aim to secure the financing of the company sustainably until at least the end of 2020.

With a 25% sales growth to EUR 3.5 million in the first quarter we made a good start to 2019 and laid a sound foundation for the planned dynamic sales growth in the full year. The intensive current exchange with the BfArM on our application to conduct a human clinical study for our silver coating technology makes us optimistic and different global orthopaedic companies reaffirmed their interest in the innovative silver coating technology as well as in the products of the LOQTEQ® family during talks currently conducted. Based on these developments, we remain confident to enter into a growth phase now with a magnificent technology pipeline, modern production facilities, international product approvals and a good sales momentum in key markets. Now is the time to harvest the fruits of endeavour and investment in recent years by marketing our technologies and expanding national and international sales. We can only do so jointly with our talented, creative and committed employees and longstanding partners who work hard to bring *aap* closer to this target step by step every day – for which we would like to take this opportunity to thank them most cordially.

Bruke Seyoum Alemu
Chairman of the Management Board / CEO



Marek Hahn
Member of the Management Board / CFO

B. Combined Management Report

In the following, relationships within the parent company and the Group are reported using the terms *"aap"*, *"aap* Group", "Group", or "Company".

There may be technical rounding differences in the following figures; however, these do not impair the overall information.

I. Principles of the Group

1. Business Model

aap is a globally operating medical device company headquartered in Berlin. The company develops, manufactures and markets trauma products for orthopedics. With its innovative and IP-protected platform technologies and products, *aap* focuses on unmet needs and challenges in trauma. The company has a total of three platform technologies: The anatomical plating system LOQTEQ® (successfully marketed since 2011), the antibacterial silver coating technology (in approval process), and the resorbable magnesium implant technology (under development). In addition to the innovative LOQTEQ® products, the currently marketed IP-protected portfolio includes trauma complementary biomaterials as well as a wide range of cannulated screws and standard plates and screws.

app's two main locations are in Berlin, Germany, and Atlanta, Georgia, USA. In Berlin, the company develops, manufactures, and markets all products under one roof. In Atlanta, Georgia, USA, all orders for the North American market are logistically handled via a service provider of the distribution company *aap* Implants Inc.

Most products are sold under the brand name "*aap*". While products in Germany are sold directly to hospitals, buying syndicates, and hospital groups, the company uses a broad network of distributors in more than 25 countries at the international level. In North America, *aap* is pursuing a hybrid distribution strategy. Distribution takes place both via distribution agents and through partnerships with global orthopedic companies.

Within the orthopedic industry, *aap* is addressing the fast-growing trauma segment. This field works to aid bone fracture recovery by fixing the bone in such a way that it is returned to its original position and alignment. A general distinction is made between externally applied products (external fixators) and implanted devices such as plates, screws, pins, wires, staples and intramedullary nails. The trauma market posted global sales of around USD 6.9 billion in financial year 2017[1]. This represents approximately 14% of the orthopedics industry's total market volume. The trauma market is dominated by four large companies in particular – DePuy Synthes, Stryker, Zimmer Biomet, and Smith & Nephew. According to estimates, these companies were responsible for around 70% of total global sales in financial year 2017.

[1] Source: "The Orthopaedic Industry Annual Report 2018"; available on request from Orthoworld Inc.

2. Group Strategy

Within orthopedics *aap* has focused on trauma. The Management Board believes that this fast-growing segment presents good opportunities to gain market share through product and technology innovation. As a pure player in trauma, *aap* develops innovative platform technologies and products in response to unmet needs and challenges. The company has identified three key market needs: simplifying operation techniques for im- and explantation of the implant, reducing surgical site infections (SSI), and avoiding the need for a second operation to remove the implant by using resorbable metal implants. The three innovative platform technologies LOQTEQ® (successfully marketed since 2011), antibacterial silver coating (in the approval process), and resorbable magnesium implants (under development) address precisely these needs and thus offer considerable growth potential. With its LOQTEQ® products *aap* is active in the fastest growing trauma segments. Furthermore, silver coating and magnesium implants technologies can lower health care system costs significantly by reducing infection risks respectively avoiding a second operation. With this innovative IP-protected product and technology portfolio and its focused business model, *aap* is in an excellent position to exploit the opportunities in the dynamically growing trauma market.

A further major objective of the company's strategy is to unlock the inherent value of this innovative product and technology base. Since all *aap* platform technologies are predestined to develop their full value potential in cooperation with global partners, the company is regularly evaluating strategic alternatives to value generation and enhancement in this context. These include, among other things, co-development partnerships, distribution and license agreements as well as joint venture agreements to corporate transactions (e.g. merger, share or asset deals as well as carve outs).

In sales terms, as part of its growth strategy, *aap* focuses on Germany and the international key markets North America, Europe and the BRICS states.

The Management Board specifies its goals for the financial year as a Management Agenda within defined strategic and operational action areas. The assessment of the 2018 Management Agenda can be found in the section "Other indicators" of this report. The new Management Agenda for the 2019 financial year is presented in the "Outlook".

3. Organizational Structure

aap Implantate AG is the parent company of the *aap* Group. The management reports for *aap* Implantate AG and for the Group are summarized in this report. The *aap* Group comprised the following fully consolidated subsidiaries as of December 31, 2018: *aap* Implants Inc. and MAGIC Implants GmbH. Furthermore, as at the reporting date, the Group held a 4.57% stake in AEQUOS Endoprothetik GmbH.

Subsidiaries

- ***aap* Implants Inc.**

  aap Implants Inc. is the distribution company of *aap* Implantate AG for the North American market. The company is based in Dover, Delaware, USA. All orders are logistically handled via a service provider in Atlanta, Georgia, USA.

- **MAGIC Implants GmbH**

  MAGIC Implants GmbH is a shelf company in which all potential development and, if applicable, marketing activities in the area of resorbable magnesium implant technology are to be bundled. The company is based in Berlin.

Holdings

- **AEQUOS Endoprothetik GmbH**

  There is a 4.57% stake in AEQUOS Endoprothetik GmbH that has no decisive influence on the operating and financial policies. The company is based in Munich.

  As the stake in AEQUOS Endoprothetik GmbH is immaterial for the presentation of the asset, financial and earnings position of the *aap* Group, the present report waives additional information hereto.

Executive Bodies

- **Management Board**

  The Management Board of *aap* consists of two members.

  Mr. Bruke Seyoum Alemu (53) is Chairman of the Management Board / CEO and is responsible for Corporate Development, Research & Development, Production, Quality Assurance, Regulatory Affairs, as well as Sales and Marketing.

  Mr. Marek Hahn (44) is a Member of the Management Board / CFO and, in addition to Finance / Controlling, is responsible for Human Resources, IT, Legal Affairs, Administration, as well as Investor and Public Relations.

Further information about the *aap* Management Board can be found on the company's corporate website at https://www.aap.de/company/corporate-governance/management-board.

- **Supervisory Board**

  The Supervisory Board of *aap* consists of three members.

  Mr. Biense Visser (66) is Chairman of the Supervisory Board and **Ms. Jacqueline Rijsdijk** (62) is Vice Chairwoman of the Supervisory Board. **Mr. Rubino Di Girolamo** (56) also serves on the Supervisory Board.

  Further information about *aap*'s Supervisory Board can be found in the notes to this report and on the company's corporate website at https://www.aap.de/investor-relations/corporate-governance/supervisory-board.

4. Segments

At *aap*, there are no business segments identified for which regular reporting to the Management Board would be performed. Instead, the goal of the corporate strategy is to unlock the inherent value of the innovative product and technology base. The monthly reporting system facilitating the management of the company consists exclusively of consolidated sales, progress with significant development projects of the Group, liquidity, and the working capital of the entire Group. The company is managed solely on the basis of this data. *aap* is therefore managed both internally and externally as a company without separate segments.

5. Principal Facilities

The company's two main locations are Berlin (Germany) and Atlanta (Georgia, USA). The parent company, *aap* Implantate AG, is based in Berlin, Germany. In Atlanta (Georgia, USA), all orders for the North American market are logistically handled via a service provider of the distribution company *aap* Implants Inc.

6. Customers and Markets

Germany and North America are still *aap*'s largest single markets, while all other sales territories are combined in the international region.

In Germany, *aap* sells its products directly to hospitals, buying syndicates and hospital groups. In financial year 2018, the company's home market accounted for around 26% of sales (previous year: 22%).

aap relies on a hybrid distribution strategy in North America. Distribution takes place both via distribution agents and through partnerships with global orthopedic companies. The company generated around 21% of its total sales in North America in the reporting year (previous year: 28%).

The international region encompasses all markets outside of Germany and North America. For this region, *aap* uses a broad network of distributors in more than 25 countries. This region accounted for approximately 54% of sales in financial year 2018 (previous year: 47%).

Other sales revenues, which continue to be stated, result primarily from discontinued activities (divestments of *aap* Joints GmbH and *aap* Biomaterials GmbH in 2016). The proportion of these other

sales revenues in the total sales fell to 0% in the 2018 financial year (previous year: 2%). The sales revenues no longer play a role in future business development and are therefore not subject to any regional analysis.

aap uses a consignment model to market its products to its German customers (hospitals, buying syndicates and hospital groups) and the majority of distribution agents in North America (stocking distributors). The company first places the systems with its customers, and only upon use or implementation of the implants sales are made. In contrast to this, distributors in the international markets and global partners in North America purchase the products directly, which generates sales immediately.

With its three largest customers, *aap* generated sales of around EUR 2.9 million in the reporting year (2017 financial year: EUR 2.1 million). This corresponds to 27% of total sales achieved in the 2018 financial year (previous year: 19%).

II. Business and General Conditions

1. Overall economic growth

According to recent estimates made by the International Monetary Fund (IMF), the global economy grew by around 3.7% in 2018.[2] The growth rate of the real, price-adjusted gross domestic product (GDP) therefore declined slightly compared to 2017 (3.8%). The economic output of industrial countries increased by around 2.3% in 2018, and therefore also at a lower growth rate than in 2017 (approx. 2.4%). Also in the emerging markets the growth rate of the economy was with approx. 4.6% in the reporting year somewhat weaker than in 2017 (approx. 4.7%). Although the global economy remained on the growth path, the first signs of weakening were seen in the second half of the year, particularly in Asia and Europe. For example, the new German vehicle exhaust emission standards and various natural disasters in Japan burdened the national economies against a backdrop of a weaker capital market environment, trade policy uncertainties and general concerns about the outlook for the Chinese economy. At the same time, in the fourth quarter of 2018, a slowdown in industrial production outside the USA – especially in the capital goods sector – was recorded. Against this backdrop, and not least because of the negative effects of the ongoing trade dispute between the USA and China, the IMF has recently corrected its forecast for 2019 downwards, and now expects global economic growth of around 3.5%.[3] The growth forecast also continues to be characterized by a high degree of uncertainty. Risks arise, for example, from the imminent escalation of trade policy conflicts, the normalization of monetary policy, or a possible downturn of the Chinese economy. Also in the eurozone, the political uncertainty has increased, for example due to the most recent developments in Italy following the change of government, and concerns about the upcoming exit of the United Kingdom from the European Union. *aap* maintains only minor business relationships with the United Kingdom, both in terms of customers and suppliers. Brexit is therefore expected to have only a very minor direct impact on *aap's* further business development.

According to IMF estimates, real GDP in the eurozone increased by around 1.8% in 2018. Thereby the European economy has clearly lost momentum compared to the previous year, when growth of around 2.4% was recorded. In this context in particular the decrease in exports as a result of the trade dispute

[2] Internet source: https://www.imf.org/en/Publications/WEO/Issues/2019/01/11/weo-update-january-2019
[3] Internet source: https://www.imf.org/en/Publications/WEO/Issues/2019/01/11/weo-update-january-2019

with the US had a burdening effect. For 2019, the IMF predicts a further increase in economic output in Europe, but with a lower growth rate of approx. 1.6%.[4]

The German economy was also characterized by a slower growth dynamic in 2018. Although both private consumption and corporate investment continued to increase, the German economy slowed down in the reporting year due to external economical developments. According to the German Federal Government's annual economic report for 2019, the price-adjusted GDP increased by about 1.5% in 2018, whereas 2017 was characterized by an increase of approx. 2.2%.[5] For the year 2019, the Federal Government is anticipating growth of around 1.0%, despite good initial domestic economic conditions against the backdrop of economic forecasts for the global economy.

In the USA, the economic situation was robust and continued to record a dynamic performance in 2018. According to information from the IMF, economic growth in the reporting period was around 2.9%, and therefore increased compared to 2017 (approx. 2.2%).[6] The rising employment and income levels had a particularly positive effect, as did the tax reform which entered into force in early 2018 and which noticeably stimulated domestic demand and investment activities. Against the backdrop of the continued rise in interest rates and the weakening impulses from the fiscal policy, the forecast growth rate for 2019 is somewhat lower at approx. 2.5%. With *aap* Implants Inc., *aap* has a significant US subsidiary. The distribution company for the North American market plays an important role in the growth strategy. Alongside Europe and the BRICS states, North America is one of *aap*'s international key markets, and shall contribute to the planned sales growth and earnings improvement in financial year 2019 (see the chapter "Outlook" for further details). However, the years following the first sales in 2016 were initially characterized by market development, meaning that the company did not generate any profit. Financial year 2019 will also be marked by advanced market development, so only a slight profit is expected on the basis of current planning. With increasing profit realization in the coming years, the US tax reform may have a direct positive impact on the results of *aap* Implants Inc. In addition, the tax reform could have a sustainably positive impact on large US companies, with which *aap* maintains and further strives for global partnerships. As a result, this could also have an indirect positive impact on *aap.*

2. Industry-related developments

The medical technology sector is generally considered to be a growth market with favorable prospects. The 2019 sector report on medical technology from the Bundesverband für Medizintechnologie e.V. (the German Medical Technology Association, BVMed) identifies the progress in medical technology, demographic change and increased health consciousness with a view to securing a better quality of life as factors which should further increase the demand for health services[7]. In view of the sales development of manufacturing medical technology companies in Germany, total sales grew by 2.5% to EUR 29.9 billion in 2017 (2016: EUR 29.2 billion) according to the German Federal Statistical Office. The main reason for this temporary development, which was generally below expectations, is the weaker rate of exports to the USA as well as to China, France, Italy, and the United Kingdom. A more positive picture was derived from the results of the autumn survey, which is carried out annually by BVMed. 78% of the 110 companies surveyed expect an improved sales result in the German market in

[4]Internet source: https://www.imf.org/en/Publications/WEO/Issues/2019/01/11/weo-update-january-2019
[5] The German Federal Government's annual economic report for 2019 is available from the German Federal Ministry for Economic Affairs and Energy.
[6] Internet source: https://www.imf.org/en/Publications/WEO/Issues/2019/01/11/weo-update-january-2019
[7]The BVMed 2019 sector report on medical technology is available on request from the association's Press Center.

2018 compared to 2017. In conclusion, an adjusted sales growth of around 4.2% can be determined. In 2017, the growth rate calculated for the German market was around 2.8%. The situation for the global market is better still: 88% of the companies surveyed expect worldwide a better sales result in 2018 than in the previous year. On this basis, for the companies surveyed, a global sales growth of 5.9% compared to the previous year can be determined. A growth rate of 5.9% was also recorded in 2017.

According to the BVMed 2019 sector report on medical technology, the global medical technology market had a volume of around USD 390 billion in 2017. On this basis, the USA took first place with approx. 38.8%, followed by Germany (approx. 9.9%), Japan, and China. With regard to the prospects of the world market, market researchers from Evaluate MedTech are forecasting an average growth of 5.6% for the years between 2017 and 2024. Regarding the European Union, German medical technology companies account for around EUR 32.4 billion of sales, representing the largest share of the total European sales volume (approx. EUR 95 billion).

According to estimates by Orthoworld Inc., the entire global orthopedics industry achieved a sales volume of around USD 49.4 billion in 2017. This corresponds to an increase of around 3.7% compared to the previous year (2016: approx. USD 47.6 billion). [8] Annual growth rates of 3.7% to 3.9% are expected for global sales development of orthopedic products in the years from 2018 to 2022. Within orthopedics, the volume of global sales in the trauma segment increased by about 4.6% in 2017 compared to the previous year, standing at approx. USD 6.9 billion (2016: approx. USD 6.6 billion). For the trauma market, growth rates between 4.6% and 5.0% are expected for the years 2018 to 2022. Accordingly, it is expected that sales of trauma products will exceed the threshold of approx. USD 8.7 billion in the year 2022. For the plates and screws subsegment of the trauma sector, analysts anticipate an average annual growth rate (CAGR[9]) of around 7.0% for the years 2017 to 2021[10].

3. Legal framework

Official registration and approval are a precondition for marketing medical products in every market in the world. As the basic aim is to market *aap* products all over the world, the quality management system is based on the requirements of harmonized international standards and European regulations, as well as national and international laws. The company is regularly audited and certified accordingly. On the basis of the EU conformity assessment procedure, the products bear the CE mark and are allowed to be distributed. In addition, a majority of *aap* products are also approved by the US Food and Drug Administration (FDA). In addition, large parts of the portfolio are approved by the authorities in China, Japan, Saudi Arabia, Brazil, and several other countries worldwide.

aap is certified pursuant to the DIN EN ISO 13485 norm relevant for medical device manufacturers and in accordance with Annex II of European Directive 93/42/EEC for medical devices. All relevant environmental protection regulations are observed within the scope of business activities. Neither the manufacturing methods nor the products manufactured by *aap* pose a direct or an indirect risk to the environment.

Overall, *aap* remains faced with significantly increased regulatory requirements from the international sales markets, and within the EU by the implementation of the new EU Medical Device Regulation (MDR 2017/745/EU). The increased requirements of the European regulation, and the associated cost

[8] Source: “The Orthopaedic Industry Annual Report 2018”; available on request from Orthoworld Inc.
[9] CAGR = Compound Annual Growth Rate
[10] Internet source: https://www.researchandmarkets.com/publication/msyrkjc/4403373

increases, are considered the biggest obstacle to the future development of the medical technology sector according to a survey conducted by the Bundesverband für Medizintechnologie e.V.[11] (the German Medical Technology Association, BVMed). The pressure on small and medium-sized enterprises will rise in particular. *aap* addresses the conversion of the management system to the new MDR with the extensive transfer program Fit 4 MDR. The program was initiated at the end of financial year 2018 as a consequent continuation of the quality management program Quality First, which had been implemented already in 2017, and will lead to a comprehensive and efficient transition to MDR from the beginning of 2019 onwards. A significant part of Fit 4 MDR is the conversion of processes and documents to the new increased MDR requirements. The program is implemented company-wide and will establish the prerequisites for a successful certification pursuant to MDR by the middle of 2020.

III. Economic Report

1. Earnings Position

Sales and margin development and total operating performance

In 2018, *aap* recorded **sales** of EUR 10.8 million (FY/2017: EUR 10.9 million) and thereby a value below the initial guidance from February 2018 of EUR 13.0 million to EUR 15.0 million. The background is primary the sales development in our key market North America, which fell short of the Company's expectations. In this market aap could not sign further contracts with global partners in the past financial year, and distribution business was temporarily burdened by the loss of certain distributors and clinics. This shortfall in sales could not be offset on a short-term basis elsewhere. In contrast, *aap* recorded a pleasing development in financial year 2018 in its home market Germany, and increased sales by 14% to EUR 2.8 million (FY/2017: EUR 2.4 million). Here, the sales activities, such as the listing at major German hospital groups and purchasing associations, show effect. A positive development could also be seen in international key markets Europe (without Germany) and BRICS, where *aap* recorded growth of 24% to EUR 3.6 million (FY/2017: EUR 2.9 million). The growth drivers here were the expansion of business with existing customers and the acquisition of new customers, including in South Africa.

In KEUR	FY/2018	FY/2017	Change on year
Trauma	**10,816**	**10,648**	**+2%**
Germany	2,774	2,427	+14%
North America	2,240	3,071	-27%
North America distributors	*2,172*	*2,491*	*-13%*
North America global partners	*68*	*580*	*-88%*
International (without North America)	5,802	5,150	+13%
Europe (without Germany)	*1,864*	*1,593*	*+17%*
BRICS states	*1,713*	*1,297*	*+32%*
Total key markets	***3,577***	***2,890***	***+24%***
Rest	*2,225*	*2,260*	*-2%*
Other (mainly discontinued activities)	-35	254	>-100%
Sales	**10,781**	**10,902**	**-1%**

Other sales in the 2017 financial year came from the product business and from sales services for the former shareholdings / subsidiaries *aap* Joints GmbH and *aap* Biomaterials GmbH, which were virtually entirely absent this year due to divestments performed in the previous years.

[11] The BVMed 2019 sector report on medical technology is available on request from the association's Press Center.

The **total operating performance** includes sales revenues and changes in inventories as well as capitalized own and development services. With sales revenues virtually unchanged, total operating performance rose by EUR 1.0 million to EUR 12.6 million (+8%) in the 2018 financial year. One reason for this is a lower reduction in inventories of finished goods and work in progress, while another, in comparison to the previous year, is the significantly higher level of capitalized own and development costs.

The **cost of materials** rose by EUR 0.5 million in the 2018 financial year to EUR 2.3 million (FY/2017: EUR 1.9 million). The same is true for the **cost of materials ratio** (with regard to sales revenues and changes in inventories), which also rose to 22% during the reporting period (FY/2017: 18%). The background to this development was a change in the product / market / customer mix with a higher cost of materials, which was temporarily influenced, among other things, by the lower proportion of high-margin US sales to total sales, an increased scope of services purchased from third parties and an increase in the use of temporary workers compared to the previous year. As a result, the share of external services in the cost of materials also increased to 11% in the 2018 financial year (FY/2017: 7%).

On the basis of the above-mentioned developments, the **gross margin** (relating to sales revenues, changes in inventories and cost of materials) decreased from 82% in the previous year to 78% in the 2018 financial year.

In accordance with IFRS, *aap*, as a development-intensive company, capitalizes not only internally produced capital goods but also expenses of its own projects and development projects (**capitalized own projects**) for which approval and economically successful sales are highly likely. In the 2018 financial year, capitalization on own and development costs increased as planned to EUR 1.9 million (FY/2017: EUR 1.3 million). The vast majority of these additions related to the further development of our silver coating technology, especially in connection with the preparation of the human clinical study. After market launch, these capitalized development costs are depreciated over the products' useful life.

Other income, cost structure and result

Other operating income fell from EUR 0.8 million in financial year 2017 to EUR 0.5 million in the reporting period. This decline is largely attributable to lower income from centralized services for the former shareholdings / subsidiaries *aap* Joints GmbH and *aap* Biomaterials GmbH, which was virtually entirely absent this year due to divestments performed in the previous years. Income from the release of provisions and the derecognition of liabilities also fell.

Personnel expenses increased in the 2018 financial year as planned by EUR 0.4 million to EUR 7.8 million (FY/2017: EUR 7.4 million). This increase is due to the full-year effect of the hiring adjustments made at the end of 2017 primarily in order to meet the increased regulatory requirements, but also as part of the comprehensive work surrounding the aimed market approval for the silver coating technology. The personnel cost ratio (in relation to total operating performance) decreased from 63% in the previous year to 62% in the 2018 financial year as a result of a rise in total operating performance and an increase in personnel expenses.

As at the reporting date of 12/31/2018, a total of 148 employees were employed at *aap* (12/31/2017: 141 employees).

Other operating expenses remained unchanged in the 2018 financial year compared to the previous year at EUR 9.4 million. In contrast to our original plan, the sales-related costs of goods delivery (outgoing freight, packaging material, and sales commissions) fell in line with the declining sales development in North America, while the costs for external employees and quality assurance measures increased as planned against the backdrop of stricter regulatory requirements, and development costs, particularly for our silver coating technology, also increased. In addition, special costs relating to expanded measures in connection with the step-up strategy implementation burdened the earnings. All in all, there were no significant changes in the other cost items. As in the previous year, other operating expenses include non-recurring special effects amounting to EUR 1.4 million, which are reported individually when converting EBITDA to recurring EBITDA. Overall, the other operating expenses ratio (relative to total operating performance) fell from 80% in the 2017 financial year to 74% in the reporting period.

aap realized **EBITDA** of EUR -6.4 million in financial year 2018 (FY/2017: EUR -6.2 million), which was also below the forecast of EUR -5.0 million to EUR -3.4 million issued in February 2018. In addition to the sales development described above, this was primarily the result of one-time costs for strategic measures.

As not-insignificant one-time effects are included in both financial years, a comparison on the basis of the **recurring EBITDA** (EBITDA without one-time effects) is useful:

in EUR million	**FY/2018**	**FY/2017**
EBITDA	**-6.4**	**-6.2**
"Quality First"/ Fit4MDR project	0.1	0.4
Expenses on voluntary product recalls	0.0	0.3
Personnel measures (external staff)	0.6	0.1
Evaluation of strategic options	0.5	0.2
Personnel measures (placement costs)	0.2	0.3
Value depreciations raw materials	0.0	0.2
Recurring EBITDA	**-5.0**	**-4,7**

Based on the above developments, the – **recurring EBITDA** – adjusted for one-time effects for the 2018 financial year amounted to EUR -5.0 million (FY/2017: EUR -4.7 million).

Planned depreciations changed little compared to the previous year, amounting to EUR 1.7 million in the 2018 financial year (FY/2017: EUR 1.8 million).

EBIT in the reporting period amounted to EUR -8.1 million (FY/2017: EUR -8.0 million).

The significant improvement in the **financial result** for the 2018 financial year, which amounted to EUR 0.5 million (FY/2017: EUR -1.3 million), is a result of the recognition of unrealized currency effects from intra-Group transactions within the financial result. While the development of the USD/EUR exchange rate had a considerable negative effect on transactions in the 2017 financial year, in 2018 this development turned around and produced a positive effect.

Overall, *aap* achieved a **net result** in financial year 2018 of EUR -7.7 million (FY/2017: EUR -9.3 million).

Having taken currency differences recorded in the comprehensive income into account, the **overall result** is EUR -7.8 million (FY/2017: EUR -8.9 million).

2. Asset Position

aap's balance sheet total at the end of the 2018 financial year decreased by 17% compared to 12/31/2017 (EUR 50.5 million) to EUR 42.2 million.

Non-current assets as at 12/31/2018 rose by EUR 0.8 million compared to the figure as at the end of the 2017 financial year. This increase resulted mainly from higher additions from investments in intangible assets, while the property, plant and equipment fell because of lower additions from investments in relation to scheduled depreciation. In addition, the other financial assets fell due to released securities for balances with banks pledged to third parties to secure financial liabilities. Capitalized development costs increased by EUR 1.3 million compared with the reporting date as at 12/31/2017, primarily as a result of development activities in the area of silver coating technology and the scheduled expansion of the LOQTEQ® portfolio. The proportion of intangible assets to total assets stands at 31%, having risen significantly compared to year-end 2017 (12/31/2017: 23%).

Current assets decreased from EUR 28.8 million as at 12/31/2017 to EUR 19.7 million as at the reporting date and were influenced predominantly by the decrease in cash and cash equivalents, the slight increase in trade receivables and the reduction in other financial assets. The trade receivables increased slightly compared to the end of 2017 as a result of reporting-date factors, reaching EUR 2.7 million (12/31/2017: EUR 2.5 million). In line with the development of **other financial assets** under non-current assets, the stock value decreased year-on-year by released cash securities for balances with banks pledged to third parties to secure financial liabilities, as well as the maturity statement between current and non-current assets.

Cash and cash equivalents fell in the 2018 financial year and amounted to EUR 4.3 million as at the reporting date (12/31/2017: EUR 13.3 million). In addition to funds to finance operations (EUR 5.9 million) and investment expenditure (EUR 3.0 million), additional funds also drained into loan repayments (EUR 0.8 million). In addition, the Company received a total of EUR 0.6 million from released cash securities for bank balances pledged to third parties to secure financial liabilities. Together with the tied-up liquidity holdings under the current and non-current other financial assets, the **cash holdings** as at 12/31/2018 amounted to EUR 7.3 million (12/31/2017: EUR 17.1 million).

Based on the net result of EUR -7.7 million, **equity** decreased to EUR 34.9 million as of 12/31/2018 (12/31/2017: EUR 42.6 million). With total assets of EUR 42.2 million as at 12/31/2018 (12/31/2017: EUR 50.5 million), the equity ratio remains unchanged at 83% (12/31/2017: 84%).

After the regularly scheduled loan repayments (EUR 0.3 million) were made, **financial liabilities** fell from EUR 0.3 million as at year-end 2017 to virtually zero as at 12/31/2018. **Trade payables** rose from EUR 1.8 million at the reporting date in the previous year to EUR 2.1 million as at 12/31/2018, while **provisions** decreased from EUR 0.7 million to EUR 0.3 million and **other financial liabilities** decreased from EUR 2.7 million to EUR 2.1 million.

3. Financial Position

Starting from a net result of EUR -7.7 million, *aap*'s **operating cash flow** in financial year 2018 was up by EUR -5.9 million on the same period in the previous year (FY/2017: EUR -5.4 million). The main changes year-on-year can be summarized as follows:

- Slight decrease in operating profit (EBIT)

- Working capital: Positive effect from reduced inventories (EUR 0.3 million without taking into account currency effects) and the increase in trade payables (EUR 0.4 million), as well as a countervailing effect from the increase in trade receivables as a result of reporting-date factors (EUR 0.1 million)
- Non-cash effect in the amount of EUR -0.3 million, reported in the changes in other liabilities

Adequate control of working capital (inventories, trade receivables and trade payables) is still a key element of management for *aap*. In particular, this involves aiming to set adequate limits for capital commitment in inventories and days sales outstanding, taking into account growth momentum.

Cash flow from investment activities increased to EUR -3.0 million in financial year 2018 (FY/2017: EUR -1.5 million). Investments in development projects amounted to EUR 1.9 million (FY/2017: EUR 1.3 million) and property, plant, and equipment amounted to EUR 0.8 million (FY/2017: EUR 0.7 million), while in the same period of the previous year inflows from investment allowances amounted to EUR 0.5 million.

The main effects in **financing activities** can be summarized as follows:

- Repayments on loan contracts in the amount of EUR 0.3 million
- Repayments on finance leasing agreements in the amount of EUR 0.5 million
- Returns from released balances under pledged time deposits in the amount of EUR 0.6 million

This resulted in a cash outflow of EUR 0.2 million from financing activities for the 2018 financial year (FY/2017: cash outflow of EUR 3.5 million).

Cash and cash equivalents therefore decreased as at the reporting date of the 2018 financial year to EUR 4.3 million (12/31/2017: EUR 13.3 million). In addition, EUR 3.0 million (12/31/2017: EUR 3.8 million) in balances with banks was recognized under other financial assets, as it was pledged or deposited as a security to the financing bank for bank guarantees granted to third parties within the framework of securitizing financial liabilities.

The **net credit balance** (the sum of all cash and cash equivalents minus all interest-bearing liabilities and taking into account bank deposits for lease liabilities) was EUR 4.0 million as at 12/31/2018 (12/31/2017: EUR 12.7 million).

aap therefore had **cash holdings** (sum of all freely available cash and cash equivalents and the tied-up liquidity holdings under the current and non-current other financial assets) in the amount of EUR 7.2 million as at the reporting date (12/31/2017: EUR 17.1 million).

IV. *aap* Implantate AG (Condensed version according to the German Commercial Code (HGB))

In addition to reporting on the *aap* Group, below we describe the development of *aap* Implantate AG.

aap Implantate AG, with its registered office in Berlin, is the parent company of the *aap* Group. Its principal business activities comprise the development, production, and global marketing of trauma products for orthopedics and the management of the *aap* Group's activities.

In Berlin, the company develops, manufactures, and markets all products under one roof. Most products are sold under the brand name "*aap*". While products in German-speaking countries are sold directly to hospitals, buying syndicates, and hospital groups, the company uses a broad network of distributors in more than 25 countries at the international level. *aap* Implantate AG serves the North American market via its subsidiary *aap* Implants Inc. based in Dover, Delaware, USA as well as through partnerships with global orthopedic companies and distributors.

The annual financial statements of *aap* Implantate AG are prepared in accordance with the German Commercial Code (HGB). The consolidated financial statements are prepared in accordance with the IFRS, as adopted by the EU. This has resulted in differences in the accounting and valuation methods. These relate primarily to intangible assets, provisions, and deferred taxes.

The main financial performance indicators for *aap* Implantate AG are Sales, EBITDA, Inventory Turnover Rate, and DSO (Day Sales Outstanding). The main non-financial performance indicators in financial year 2018 are taken from the 2018 Management Agenda. It can be found in the section "Other indicators" of this report.

Earnings Position

Sales development and total operating performance

Sales in the 2018 financial year amounted to EUR 10.8 million, the same level as the previous year (FY/2017: EUR 10.8 million). This includes sales of EUR 1.4 million (FY/2017: EUR 1.5 million) from intra-Group deliveries to the US subsidiary *aap* Implants Inc. In addition, the Company generated sales of EUR 0.3 million in the 2017 financial year from product deliveries and the provision of centralized services for the former shareholdings / subsidiaries *aap* Joints GmbH and *aap* Biomaterials GmbH, which were virtually entirely absent in the 2018 financial year as a result of the sale in previous years. If all of the aforementioned effects are excluded, *aap* Implantate AG's sales growth resulted primarily from the expansion of business with existing customers and the acquisition of new customers.

The **change in inventory** decreased from EUR -0.7 million in the previous year to EUR -0.2 million in the 2018 financial year. This is still a very welcome development, as some of the sales in the 2018 financial year were realized from existing inventories and resulted in a reduction in inventories, albeit a slight one.

Based on a slight increase in other capitalized own work, **total operating performance** increased from EUR 10.6 million in financial year 2017 to EUR 11.2 million in the reporting period, mainly as a result of a lower reduction in inventories.

Cost structure and result

Other operating income increased by EUR 0.5 million (FY/2017: EUR 0.5 million) to EUR 1.0 million during the reporting period. This increase is mainly the result of a sharp increase in income from exchange rate differences from transactions with the US subsidiary.

The **cost of materials** increased from EUR 1.9 million in the previous year to EUR 2.4 million in the 2018 financial year, largely as a result of a change in the product and customer mix, the lower reduction in inventories compared to the previous year, the increased use of temporary workers and the increase in other third-party services.

The EUR 0.3 million increase in **personnel costs** (FY/2017: EUR 7.0 million) to EUR 7.3 million in the reporting period was mainly due to the increase in personnel, which was carried out in order to meet the higher regulatory requirements in the medical technology sector and as part of the comprehensive work on our silver coating technology development project. As of 12/31/2018, the Company had 146 employees (12/31/2017: 139 employees). A countervailing effect also arose from the reduced expenses for management bonuses, among other things, as the targets for the 2018 financial year were largely not achieved.

Other operating expenses fell from EUR 8.7 million in the previous year to EUR 7.2 million in the 2018 financial year, primarily as a result of a significant decrease in expenses in the amount of EUR 1.2 million from exchange rate differences from intra-Group transactions with the US subsidiary. In addition, other operating expenses for the 2018 financial year include non-recurring special effects amounting to EUR 1.4 million (FY/2017: EUR 1.2 million). In financial year 2018, these consisted of increased personnel leasing costs in the amount of EUR 0.6 million, costs for personnel services in the amount of EUR 0.2 million, the evaluation of various strategic alternatives to increase the value of our company in the amount of EUR 0.5 million and the costs of measures to meet the higher regulatory requirements in the amount of EUR 0.1 million. When these effects are eliminated, other operating expenses decreased to EUR 5.8 million in financial year 2018 (FY/2017: EUR 7.5 million).

The EUR 0.1 million increase in **interest income** to EUR 0.6 million in the reporting period resulted primarily from intragroup loans granted to the US subsidiary.

As a result, *aap* Implantate AG realized an improved **annual result** of EUR -5.6 million in the 2018 financial year (FY/2017: EUR -7.5 million), which, taking into account a profit carried forward of EUR 1.0 million, results in a balance sheet loss of EUR -4.6 million as at 12/31/2018.

Asset Position

aap Implantate AG's balance sheet total at the end of the 2018 financial year decreased by 11% compared to 12/31/2017 (EUR 55.2 million) to EUR 49.0 million.

Fixed assets increased from EUR 19.4 million in the previous year to EUR 20.7 million in financial year 2018. This was primarily impacted by the following effects: Intangible assets increased by EUR 1.6 million to EUR 12.2 million in the course of capitalizing own work and development costs, while fixed assets decreased by EUR 0.3 million due to lower additions from investments in fixed assets in relation to scheduled depreciation.

Inventories decreased from EUR 7.8 million in the previous year to EUR 7.3 million in financial year 2018 as a result of the reduction in inventories through sales and a reduction in raw materials, consumables and supplies and in finished products as of the reporting date.

Trade receivables increased slightly during the reporting period, from EUR 1.9 million in financial year 2017 to EUR 2.1 million on the reporting date. Receivables from affiliated companies increased from EUR 8.8 million to EUR 11.0 million as a result of additional product deliveries and the provision of centralized services. In line with the planned sales growth in the USA, the US subsidiary is expected to begin repaying sums to the parent company in financial year 2019.

Other assets include bank balances of EUR 3.0 million (12/31/2017: EUR 3.8 million) pledged in 2016 as collateral for financial liabilities to lenders or deposited as cash collateral for bank guarantees granted to third parties.

On the basis of the net earnings of EUR -5.6 million, **equity** decreased from EUR 48.7 million on the previous year's reporting date to EUR 43.2 as at 12/31/2018. Consequently, the equity ratio remains high at 88%.

Provisions fell from EUR 2.4 million in the previous year to EUR 2.2 million in financial year 2018.

Liabilities to banks decreased from EUR 1.4 million to EUR 0.6 million as of 12/31/2018 as a result of scheduled repayments in the 2018 financial year.

Trade payables increased from EUR 1.1 million as of 12/31/2017 to EUR 1.5 million at the end of the reporting period, reflecting the rise in total operating performance.

Other liabilities fell from EUR 0.7 million in the previous year to EUR 0.6 million in the reporting period.

Financial Position

Cash and cash equivalents as at 12/31/2018 came to EUR 4.1 million (12/31/2017: EUR 13.0 million). The decline was primarily a result of the financing of operations, development activities and investments, as well as the loan repayments that were made as planned.

Together with the liquidity holdings bound under assets, the **cash holdings** as at 12/31/2018 stand at EUR 7.1 million (12/31/2017: EUR 16.8 million).

Risks and Opportunities

The development of *aap* Implantate AG's operations is subject to essentially the same risks and opportunities as those of the *aap* Group. *aap* Implantate AG participates in the risks of its investments and subsidiaries in accordance with its respective equity interest. The risks and opportunities are presented in the "Risk and Opportunities Report" of this report. Here, we particularly refer to the liquidity risks presented in the section "Financial Risks", which can lead to an endangerment of the Company's existence.

Outlook

In view of *aap* Implantate AG's interrelationships with the Group companies and their significance for the Group, we refer to our statements in the "Outlook" section, which also reflect the forecasts for the parent company in particular. This also applies to both turnover and sales. For 2019, we once again expect a negative EBITDA for *aap* Implantate AG, but a significantly improved one compared to that of financial year 2018.

V. Other indicators

1. Significant Development Activities

Research and development in medical technology

The medical technology sector is generally characterized as highly dynamic and innovative. For example, according to the 2019 sector report on medical technology compiled by the Bundesverband für Medizintechnologie e.V. (German Medical Technology Association, BVMed)[12], German medical technology companies obtain around a third of their sales through products that are less than three years old. In addition, medical technology companies that are active in research invest around 9% of their sales in research and development. In this context, the innovation and research location Germany has a significant impact on companies. Further evidence for the highly innovative nature of the medical technology sector can be found in the growing number of patent applications. For example, according to information provided by the European Patent Office in Munich, 13,090 medical technology patent applications were submitted worldwide in 2017. This puts the sector at the top of all fields of technology. Compared to other countries, Germany is in second place, after the United States. Last but not least, a study conducted by the German Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung) found that the overall research and development share in the production value of the medical technology sector is more than twice that of the industrial goods sector.

Development activities at aap

As a pure player in trauma, *aap* develops innovative platform technologies and products in response to needs and challenges have not been adequately to date. Accordingly, the area of development is particularly important for the Company, as reflected in corresponding investments. As such, *aap* continued to incur significant expenses for its development activities during financial year 2018. At December 31, 2018, 21% of 148 employees at *aap* worked in Development, Clinical Affairs as well as Regulatory and Quality Management (previous year: 18% of 141 employees). Furthermore, the share of sales spent on research and development in financial year 2018 was 17% (previous year: 13%) and therefore above the industry average of 9% (see above). The ratio of capitalized costs in relation to total costs was 84% in the reporting year (previous year: 83%).

According to the BVMed 2019 sector report on medical technology,[13] it is also important for medical technology companies to engage in a structured manner with the ideas of users, doctors and nurses or nursing staff when considering new products and processes. Accordingly, 52% of new medical products are originally based on ideas from the users. Consequently, almost all medical technology companies open up their innovation processes and almost 90% often or very often employ user ideas for product development. *aap* also particularly values its close cooperation with various academic institutions, such as research institutes or university hospitals. This cooperation is important not just in the context of developing new products or further developing existing products, but also in the context of clinical studies. In many cases, new products are also developed following the initiative of medical users. Another promising pillar for generating sales and earnings is going to be based on early-

[12] The BVMed 2019 sector report on medical technology is available on request from the association's Press Center.
[13] The BVMed 2019 sector report on medical technology is available on request from the association's Press Center.

stage cooperation with market leaders in the areas of orthopedics and trauma. At the same time, this approach is intended to proactively secure existing technologies.

Innovations at *aap* form the foundation for continuous and sustainable value creation. With its innovative platform technologies, *aap* focuses on as yet unmet needs and challenges in traumatology. The strategic IP portfolio of the Company is geared towards securing these platform technologies and the resulting products:

Platform technologies		Primary products	Derivative products and areas of application
Anatomical Plating System LOQTEQ®	Monoaxial angular stable fixation technology (LOQTEQ®)	Anatomical plates for the upper and lower extremities and systems to correct leg misalignments and treat periprosthetic fractures (e.g. LOQTEQ® Tibia Plates, LOQTEQ® Humerus Plates, LOQTEQ® Osteotomy System)	Monoaxial angular stable fixation technology applied to implants from other manufacturers
	Polyaxial angular stable fixation technology (LOQTEQ® VA)	Anatomical plates for the upper and lower extremities to treat with multidirectional, angular stable screws (e.g. LOQTEQ® VA Radius System, LOQTEQ® VA Tibia Plates, LOQTEQ® VA Elbow System)	Polyaxial angular stable fixation technology applied to implants from other manufacturers
Antibacterial Silver Coating Technology		Silver-coated LOQTEQ® plates	e.g. cardiology, dentistry, medical instruments, etc.
Resorbable magnesium implant technology		Hydroxyapatite-coated interference screws, small plates and pins	e.g. facial surgery, sports medicine, pediatrics, etc.

Development activities in financial year 2018

In the LOQTEQ® area, the focus in financial year 2018 was on the further completion of the portfolio. In addition to the polyaxial fixation technology, plating systems for the foot and ankle areas and implants in sterile packaging were particularly paramount here. While some of the developed polyaxial systems are already approved for the North American market, *aap* worked in the reporting period towards obtaining the corresponding registrations for the European market, amongst other things. In addition, applications for approval of further products, such as the foot, periprosthetic, and calcaneus system, were submitted to the US Food and Drug Administration (FDA) in 2018. Furthermore, in financial year 2018, following requests from customers, the Company initiated additional new developments aimed primarily at complementing or expanding existing systems. Not least, a major

focus in the reporting period was on transforming processes and records to meet the new regulatory requirements.

In financial year 2018, in the area of silver coating technology, *aap* reached important milestones on the way to the start of the human clinical study as prerequisite for the targeted CE and FDA approval. For example, the Company was able to achieve convincing results in an animal study conducted with the renowned AO Research Institute Davos. It was proved that the silver coating technology developed by *aap* has no negative impact on bone healing, which is one of the regulatory authorities' central requirements. From the Company's viewpoint all the requisite preclinical data and internal validations for the application for approval of a human clinical study were then in place before the year-end, so that submission to the Federal Institute for Drugs and Medical Devices ("BfArM") could be undertaken before the year's end. In the meanwhile, *aap* is involved in an intensive exchange with the Federal Institute. At the same time, the applications have been submitted to ethics commissions with a first positive feedback. The next step is the submission of a corresponding application to the US authority. Not least, *aap* announced in financial year 2018 that its silver coating technology will be funded by the German Federal Ministry of Education and Research ("BMBF"). Initially, the Company receives grants of up to approx. EUR 0.7 million for costs incurred in the preparation of the human clinical study. The funding relates in particular to expenses in connection with the conception and qualification of the study. In a next step, *aap* also aims to receive a funding to carry out the human clinical study, for which, however, a further application will be required.

In the area of resorbable magnesium implant technology, *aap* in particular focused on the further development of the implants during the financial year 2018.

2. Marketing & Sales

aap presented its technology and product portfolio in financial year 2018 at a number of different trade fairs and specialist congresses in Germany and internationally. The most significant of these events for *aap* was the DKOU (German Congress of Orthopedics and Trauma Surgery) in Berlin and the AAOS (American Academy of Orthopaedic Surgeons) in New Orleans, Louisiana. At the DKOU, it was particularly the Company's antibacterial silver coating technology that was highlighted both in the stand design and at the lunch symposium, along with various LOQTEQ® systems. In addition, in financial year 2018, *aap* also attended Arab Health in Dubai, the 19th EFORT Congress (European Federation of National Associations of Orthopaedics and Traumatology) in Barcelona and the 34th OTA Annual Conference (Orthopaedic Trauma Association) in Kissimmee, Orlando. Furthermore, in financial year 2018, various training courses and workshops were arranged for the customers of *aap* and the users of its products. Particularly noteworthy here is certainly the "International Osteosynthesis Trauma Course", which was carried out three times in total last year, not least because of positive feedback from doctors and distributors. In addition to two events organized in proven collaboration with Gießen University Hospital under the auspices of university professor Dr. Christian Heiß, a workshop was also organized for the first time at the Institute of Anatomy at the Charité University Hospital in Berlin.

3. Employees

At December 31, 2018, a total staff of 148 were employed by *aap*, and thus seven more than on the reporting date of the previous year (141 employees).

4. Signing or Termination of Cooperation Agreements and Other Important Contracts

In financial year 2018, *aap* entered into a preliminary agreement for preparation work towards the human clinical study of its silver coating technology with a globally-operating contract research organization, with the aim of obtaining approval from the responsible authorities and ethics committees. At the same time, negotiations were conducted regarding the main agreement, which covers the operational performance of the project, from approval through to reporting.

In February 2018, *aap* entered into an exclusive distribution agreement with a company in South Africa. The initial volume in financial year 2018 represented more than 10% of total sales generated by the Company.

The agreement that had hitherto existed with a distributor in China, which set out exclusive distribution rights in certain regions, was terminated in May 2018. The sales contribution from this company in financial year 2015 was still approx. EUR 3.3 million and has gradually decreased further in recent years.

The agreement concluded with a research institute in November 2017, the aim of which was to examine the properties of a silver coated LOQTEQ® implant compared to an uncoated LOQTEQ® plate regarding the factors fracture healing and efficiency, ended with the successful conclusion of the animal study in November 2018.

Four finance leasing agreements each made with a lessor in 2013 and 2016 with a total value of EUR 555,100 and two loan agreements made with a leading German financial institution on December 17, 2013 on installment repayment loans, with a total value of EUR 1.5 million, were ended on December 31, 2018 through repayment.

5. Financial and Non-Financial Performance Indicators

Financial performance indicators

In the management of the Company, the *aap* Management Board focused primarily on the financial performance indicators **sales**, **EBITDA**, **Inventory Turnover Rate,**[14] and **DSO**[15] (Day Sales Outstanding = turnover rate of receivables) in financial year 2018.

During financial year 2018, the key figure **DSO** should have further decreased. Here, contingent upon closing day, *aap* realized a slight increase to 90 days (FY/2017: 85 days), so no further improvement could be recorded in the reporting period.

For the **Inventory Turnover Rate,** *aap* achieved its target. Here, the Company was able to further increase the value to 1.16 through a reduction in inventories coupled with sales at an unchanged level (FY/2017: 1.09).

In light of the key indicator **sales**, *aap* aimed at a value between EUR 13.0 million and EUR 15.0 million for 2018. In the reporting period, the Company recorded sales of EUR 10.8 million (FY/2017: EUR 10.9 million) and was therefore not able to achieve the target set. Regionally, *aap* recorded a pleasing development in Germany, where sales rose by 14% to EUR 2.8 million (FY/2017: EUR 2.4 million). In

[14] Definition of Inventory Turnover Rate: Inventory Turnover Rate = Sales (per period) / average inventory at purchase prices.
[15] Definition of DSO: DSO = Accounts receivable / sales * 365.

contrast, the sales development in North America fell short of expectations in 2018. In this market *aap* could not sign further contracts with global partners in the past financial year, and distribution business was temporarily burdened by the loss of certain distributors and clinics. This shortfall in sales could not be offset on a short-term basis elsewhere. International key markets Europe (without Germany) and BRICS developed positively and *aap* recorded growth of 24% to EUR 3.6 million (FY/2017: EUR 2.9 million).

EBITDA in financial year 2018 was burdened by one-time effects and amounted mto EUR -6.4 million. As such, *aap* realized a value outside the original guidance of EUR -5.0 million to EUR -3.4 million, and was not able to achieve the target set for this financial performance indicator. Recurring EBITDA adjusted for one-time effects was EUR -5.0 million. For more details regarding the distinction between EBITDA and Recurring EBITDA, please refer to section III. Economic Report.

Non-financial performance indicators

The main non-financial performance indicators of the financial year 2018 are taken from the Management Agenda 2018, in which the Management Board specified its targets in strategic and operational areas of activity. The targets set in the context of the Management Agenda as well as the corresponding results are outlined below. In terms of a consistent and stringent financial reporting the financial performance indicators are listed again here as these have been a fixed component of the Management Agenda 2018.

Accelerating value-based innovations		
Targets of the Management Agenda 2018	**Results of the Management Agenda 2018**	**Target reached?**
Silver coating technology – Application on LOQTEQ®: Start of the human clinical study aimed	Important milestones in FY/2018 with convincing results from the animal study with AO Research Institute and submission of the application for approval of a human clinical study to BfArM – study aimed to begin in H1/2019	No
Silver coating technology – Development projects with global companies: Initiation of joint product development and approval projects	Discussions held with different global companies about potential joint development projects; no project initiated to date	No
LOQTEQ®: Completion of LOQTEQ® portfolio with a focus on polyaxial fixation technology, plate systems for the foot and ankle areas as well as implants in sterile packaging	Work on CE approval of various polyaxial systems, which have already been approved for the US market; approval applications for – amongst others – foot, periprosthetic, and calcaneus system submitted to FDA; development of sterile packaging for implants, and transformation of processes and records to comply with significantly increased regulatory requirements (Medical Device Regulation; MDR) pushed further; additionally new developments initiated	Yes

Enhancing market access		
Targets of the Management Agenda 2018	**Results of the Management Agenda 2018**	**Target reached?**
Established countries: Focus on North America, Germany and Western Europe as key markets; North America as the main growth driver	Sales growth in Germany (+14%) and Western Europe (+27%) compared to previous year; North America below expectations	Partly
Emerging countries: Further stabilisation of sales development in the BRICS and SMIT countries	Significant increase in sales in BRICS countries compared to the previous year (+32%)	Yes
Global partnerships: Distribution networks and licensing deals with global orthopaedic companies	Discussions with various global orthopedic companies regarding possible shared distribution networks and licensing deals; no agreements yet reached	No

Optimizing operational efficiency		
Targets of the Management Agenda 2018	**Results of the Management Agenda 2018**	**Target reached?**
Quality first: Consequent continuation of the company-wide quality improvement program	Company-wide quality-improvement program (Quality First) continued consistently and substantial progress made; additional continuation through the Fit 4 MDR Transfer Program to ensure acomprehensive and efficient transition to the significantly increased regulatory requirements (MDR)	Yes
Production efficiency: Reduction of manufacturing costs and increase of ability to provide timely deliveries	Domestic delivery capacity was successfully increased to slightly above 90% within one day; due to extensive expenditures in quality management against the background of significantly increased regulatory requirements (MDR) and lower utilization of production capacity, manufacturing costs could not be further reduced	Partly
Working capital: Optimisation of working capital management with a higher inventory turnover and further reduction of the figure DSO (days sales outstanding); strict consignment management	Inventory Turnover Rate further increased to 1.16 through reduction in inventories coupled with an unchanged sales level (FY/2017: 1.09); DSO slightly increased to 90 days contingent upon closing day (FY/2017: 85 days); consignment management could not be improved because of sales development	Partly

Realization of financial targets		
Targets of the Management Agenda 2018	**Results of the Management Agenda 2018**	**Target reached?**
Sales: Sales of EUR 13.0 million and EUR 15.0 million	Sales in FY/2018 were EUR 10.8 million	No
EBITDA: EBITDA of EUR -5.0 million to EUR -3.4 million	EBITDA in FY/2018 was EUR -6.4 million burdened by one-time effects; Recurring EBITDA adjusted for one-time effects was EUR -5.0 million	No

VI. Risk and Opportunity Report

1. Risk Management System

aap sees itself as an internationally oriented and active company naturally confronted with a variety of risks and opportunities that may influence the business development and consequently the share price. The Company has therefore designed and implemented a comprehensive risk management system. This risk management system is primarily used to achieve the following **objectives**:

- Identification of risks,
- Assessment of risks, and
- Development and implementation of appropriate countermeasures.

Explanation of the Risk Management Process:

The risk management system used by *aap* is an integral and essential part of corporate management and is therefore a **responsibility of the Management Board**. Generally, potential risks that could jeopardize the continued existence of the Company are regularly recorded, systematized and analyzed within the scope of the risk management process, whereby the respective probabilities of occurrence and possible damage potentials are particularly determined. The analysis of opportunities is not part of *aap*'s risk management system. Specific countermeasures are developed as part of the **risk management strategy**. With the help of these countermeasures, the individual identified and assessed risks are actively managed or are reduced to an acceptable level within the scope of the intended business development. The actual risk management strategy for the 2018 financial year is therefore described in Section **3. Presentation of the principal Risks and Opportunities**.

Internal risk reporting to the Management Board of *aap* takes place as part of the coordination of the operative daily business, in which the Board is heavily involved. The Management Board is therefore promptly informed about changes and current developments and can respond to these events and take them into account when making decisions. In addition to this risk reporting, which is integrated into the operative business, regular risk reports presenting and evaluating risks on the basis of a risk matrix (probability of occurrence / loss amount) are submitted to the Management Board of *aap*. Further information such as responsibilities, control mechanisms and control instruments are also described in a summary description of the risks. This risk matrix is prepared by the Management Board for control and monitoring purposes and in order to provide information for the Supervisory Board.

The Company's risk management system additionally includes two other components that are presented below:

- **Certified quality management system**: Clearly structured and documented processes in quality management and quality control are a prerequisite for the approval and marketing of medical products. The aim is risk prevention. Quality management systems used by the Company are certified by DEKRA (*aap* Implantate AG, Berlin).
- **Controlling instruments**: The Controlling division of *aap* regularly informs the Management Board, Supervisory Board and other decision-makers of the Company regularly and in a timely manner using income, assets and liquidity illustrations and figures showing the economic situation of the Company and the status of potential risks.

2. Internal Control and Risk Management System with respect to the accounting process

The objective of the internal control system (ICS) in the accounting process is to provide reasonable assurance that the financial statements are prepared in compliance with regulations by implementing checks. As the parent Company, *aap* Implantate AG prepares the Company's consolidated financial statements.

With regard to the accounting ICS, there can only be relative assurance – rather than absolute assurance – that material misstatements are prevented and detected in the accounts.

The Central Finance division at *aap* is responsible for controlling the processes used to prepare the consolidated financial statements and management report. Laws, accounting standards and other pronouncements are continuously analyzed with regard to their relevance and impact on the consolidated financial statements. Relevant requirements are communicated and, together with the Company-wide financial statement calendar, form the basis of the financial reporting process.

The Management Board exercises overall responsibility for the organization of the ICS at Group level. Several of the various control processes in accounting are to be highlighted as essential. The key features include:

- Accounting policies for particularly relevant accounting regulations, both at Group level and in the individual Group companies
- Involvement of external experts – if required
- Use of suitable, extensively uniform IT financial systems and application of detailed authorization concepts to ensure authorizations appropriate for tasks
- Segregation of tasks between the entry of procedures and their review and approval
- Clear assignment of important tasks by planning operational accounting processes – e.g. coordinating assets and liabilities using balance confirmations
- Consideration of the risks in the financial statements which are identified and assessed in the risk management system, to the extent required by existing accounting regulations
- Strict powers of disposition when authorizing contracts, credit notes and similar, in addition to a consistently implemented "four-eyes principle"
- Allocation instructions for significant accounting transactions
- Clear instructions for the stock inventory process and the capitalization of development costs
- Regular training for employees involved in the consolidated accounting process

All structures and processes described are subject to ongoing review by the respective risk managers. Furthermore, *aap* performs active benchmarking of the best practice examples of other companies. We implement any identified potential improvements in a targeted way.

3. Presentation of the principal Risks and Opportunities

A) Risks

This section presents the individual, identified risks faced by *aap* and explains them according to their classification. A quantification of the risks takes place only when the corresponding risks are also assessed quantitatively within the framework of internal control. Overall, however, qualitative information is mainly used for internal risk reporting. A quantification of the risks only takes place in individual cases in this section.

The individual risks are arranged in a hierarchy within their category according to their gross risk to make their relative importance to the Company more transparent. The gross risk is the risk potential, which is inherent in the nature of business without considering the countermeasures already active. Accordingly, the most significant risk for *app* within a category is listed first, while the subsequent risks decrease in their relative importance to the Company. The importance of each risk is also explained individually.

Furthermore, specific countermeasures are specified for the individual identified and evaluated risks. The aim is to actively deal with the risks with the help of these countermeasures or reduce them to an acceptable level within the scope of the intended business development.

The risks mentioned in this section that may have an impact on *aap* do not always describe all risks that the Company is or could be exposed to. Risks that are not known at the time of preparation of the consolidated financial statements or which are considered immaterial may, however, additionally influence the results and financial position of *aap*.

Individual risks are assigned to the following categories:

- Financial Risks
- Market, Competition, New Products and Technologies
- Approval of Products and Certification of the Quality Management System
- Patents and Intellectual Property
- Dependence on Customers and Suppliers
- Product Liability Risks
- Capitalization of Development Costs
- Personnel Risks
- Compliance
- Data Protection
- Legal Risks

Financial Risks

aap is exposed to **liquidity risks**, which result inter alia from a lack of availability of financing sources. We combat liquidity risk with a healthy mix of short-term and long-term granted loans, as well as with

equity instruments. *aap* estimates the gross risk of a liquidity bottleneck to be low in terms of probability, but with a severe potential level of damage.

In financial year 2018, the Company generated EBITDA of EUR -6.4 million and the cash flow from current business activities was negative at EUR 5.9 million. As of December 31, 2018, *aap* had cash holdings of EUR 7.3 million[16], of which EUR 4.3 million was shown as cash and cash equivalents in the consolidated balance sheet as of December 31, 2018.

Risk of the occurrence of liquidity bottlenecks even after implementation of the capital increase

For financial year 2019 and the following years, the Management Board has set itself the goal of achieving significant sales growth, and further developing the Company's pioneering and innovative silver coating technology and to receive market approval. With regard to the silver coating technology, the Company strives for a start of a human clinical study as a prerequisite for the planned market approval in financial year 2019.

Based on the strategic alignment of the Company, the planned sales growth and the targeted start of the human clinical study different measures to strengthen the financial base are necessary. In this regard, the Management Board anticipates that the Company will receive inflows of at least EUR 2.3 million from the capital increase announced on April 17, 2019 due to existing declarations of commitment from existing shareholders. In addition to the implementation of the capital increase, the Company intends to conclude factoring as well as sale and rent back agreements, which should lead to an inflow of additional funds amounting to at least EUR 1.7 million in financial year 2019. Thereby the company would have a total of at least around EUR 4.0 million available from the financing measures in the coming months. With these inflows and the realization of the planned sales growth and the reduction of costs the financing requirements are covered for at least the next twelve months.

Based on the underlying planning, the Management Board also expects to generate cash inflows to a similar extent from technology-related transactions (e.g. outlicensing of technologies, joint venture agreements with a carve-out of technologies or involving other companies in joint development of products), from public funds and from released cash payments due to the conclusion of legal disputes, which shall sustainably secure the company's financing at least by end of 2020.

However, it is possible that the expectations and assumptions underlying this plan with regard to business development and the measures expected to lead to cash inflows may prove inaccurate. Examples of this may include a significant shortfall in the planned sales development and consequently in expected cash inflows from current business activities, unexpected additional expenses associated with the development of silver coating technology, additional investments being required, delays in projects, or an increase in the costs in general compared to current assumptions. As a consequence, despite the implementation of the capital increase in a volume which corresponds at least to the binding committed volume, there may be an additional liquidity requirement, possibly to be met in the short term, that could have to be covered by raising further equity or borrowed capital. If the Company does not succeed to a sufficient extent in concluding the aforementioned planned factoring and sale and rent back agreements, or in developing other alternative financing sources, and if the inflow of funds is therefore limited to the existing declarations of commitment from existing shareholders amounting to EUR 2.3 million as part of the capital increase, the Company would have to undertake

[16] In the consolidated balance sheet as of December 31, 2018, EUR 4.3 million is shown as cash and cash equivalents, while bank balances amounting to EUR 3.0 million are shown under other non-current and current financial assets as these are pledged as collateral for financial liabilities or have been deposited as cash collateral for bank guarantees granted to third parties.

significant operational and strategic corrections that could lead to the further development of the Company being endangered.

Continuing losses from operating activities

The Company reports a negative EBITDA of EUR -6.4 million in financial year 2018. After preliminary evaluations, sales in the first quarter of 2019 amounted to approx. EUR 3.5 million and were therefore approx. EUR 0.5 million or around 17% above the guidance communicated in January 2019 (Q1/2019 sales: EUR 2.0 million to EUR 3.0 million). Against the backdrop of this development, the Management Board now expects an EBITDA of between EUR -1.2 million and EUR -0.9 million for the first quarter of 2019 (previously: EUR -1.8 million to EUR-1.2 million). The Management Board continues to maintain its original forecast for sales of between EUR 13.0 million and EUR 15.0 million, and an EBITDA of between EUR -4.4 million and EUR -2.8 million for the full year 2019.

The Company also generated losses in financial year 2018, and invested in the development of its forward-looking technologies. As a result, its financial resources decreased accordingly. Based on the aforementioned forecast for the financial year 2019, the Management Board also expects a reduction in the financial resources for this financial year. In accordance with the underlying corporate planning for the following years, the Management Board expects that the Company will be able to generate a positive result in the foreseeable future and will thus achieve a corresponding self-financing capability, in particular through further sales growth and the implementation of technology-based transactions. Assuming that no technology-based transactions can be implemented, the Management Board expects, at least for the years 2019 and 2020, to have an improved, but still negative, EBITDA and a negative operating cash flow.

However, it cannot be guaranteed that the Company will be able to generate a positive result in the foreseeable future meaning that for the foreseeable future the Company could be dependent on equity or borrowed capital to provide its financial resources.

aap estimates the risk of having no access to an appropriate source of financing in such a case as low. On the one hand, the Company was a net-unindebted company at the end of 2018 and had an equity ratio of 83%, which is well above the market average. On the other hand, with its inventories and a comprehensive IP portfolio, *aap* still has sufficient collateral to cover any loans.

In addition, *aap* faces **interest rate risks** resulting from borrowings and investments. The Company considers the gross risk in terms of probability to be high, with a low potential level of damage. The Company mitigates these risks with Group-wide cash management and the completion of primary financial transactions. Interest rate and price change risks are managed with a combination of different maturities and fixed and variable-rate positions. In the case of interest-bearing liabilities, all liabilities have a fixed rate. Consequently, as at 12/31/2018, around 100% (previous year: 100%) of the borrowed capital had a fixed interest rate. Changes to market interest rates only have an impact if these financial instruments were to be entered onto the balance sheet at fair value. However, this is not the case. Due to the fact that as at 12/31/2018 and 12/31/2017 all liabilities had fixed interest rates no sensitivity analyzes were performed for the floating rate liabilities.

In addition, *aap* is also exposed to **risks from non-payment of accounts receivable**. The Company considers the gross risk in terms of probability to be moderate, with a low potential level of damage. The Company mitigates these risks through the active management of receivables. For this purpose, *aap* also creates sufficient risk provision in the form of specific and general allowances (FY/2018: EUR

206,000, previous year EUR 595,000). Furthermore, the Company has a credit insurance (bad debt) and, as part of its sales activities, is increasingly focusing on established markets such as North America, Germany and other European countries.

aap faces **price risks** at the client end. The Company estimates the gross risk in terms of probability to be low, with a low potential level of damage. The Company mitigates these risks by switching sales to product innovations with higher margins that are developed and produced in-house. Moreover, the majority of customer contracts include price adjustment clauses in favor of *aap*.

In the 2018 financial year, *aap* generally only arranged internal foreign currency hedging, as there was only an insignificant **currency risk**. This is reflected in the net effect from realized exchange rate differences in income and expenses (excluding unrealized currency effects from intra-Group transactions), which was less than KEUR 30 in financial year 2018. Going forward, however, due to higher US-dollar sales, *aap* plans to arrange external hedging for these receivables.

Market, Competition, New Products and Technologies

Competition in the medical technology market in general and in the markets for orthopedic and biological implants in particular will continue to increase. There is consequently a risk that *aap*, in comparison with competitors, may not react to market developments in a timely manner with new products or adaptations of existing products. This could have negative effects on the Company's assets, earnings and financial position and result in a deterioration of its market position. The Company considers the gross risk to be moderate in terms of probability, with a severe potential level of damage. *aap* mitigates this risk by making substantial investments in development and performing ongoing market and technology screenings. *aap* is also developing a worldwide network of experts to identify and track market trends from the perspective of users and implement corresponding new developments where there is sufficient potential.

Government intervention in the health care system can also have a negative impact on the Company's sales volume and profitability. *aap* estimates the gross risk to be moderate in terms of probability of occurrence, with a moderate potential level of damage. The Company mitigates this risk by ongoing internationalization of sales and intensive observation of the German healthcare system with the aim of being able to anticipate and counteract adverse trends.

Corporate consolidation is still taking place on the world market, which may still affect *aap* in terms of its client base. The Company considers the gross risk to be low in terms of probability of occurrence, with a low potential level of damage. *aap* mitigates the risk of sector consolidation by cooperating with a range of companies and is constantly building new partnerships.

Approval of Products and Certification of the Quality Management System

Strict licensing requirements apply in the medical technology and health care sectors, which vary from country to country. The requirements for bringing medical devices to the market for the first time are steadily increasing and, with them, the requirements of the *aap* quality management system and its certification. In this regard, *aap* has in particular been faced with more stringent requirements as a result of the EU Medical Device Regulation (MDR), which entered into force on May 25, 2017. There is currently a three-year transitional period and, from May 26, 2020, the Regulation will then become mandatory. From this point on, companies will therefore only be allowed to provide their products in accordance with the terms of MDR. Overall, the EU Medical Device Regulation presents major challenges to companies and notified bodies alike. For companies, not only are the basic requirements

for medical devices increasing, so too are the requirements relating to their technical documentation. The criteria for providing clinical data as part of the approval process for new products are also becoming significantly stricter, which means that more products will require expensive clinical studies. On the other hand, the notified bodies currently do not have sufficient inspection capacities since they have not yet been granted MDR certification by the national regulatory authorities to test companies' products accordingly. On the other hand, it is likely that there will be fewer testing bodies in Europe in the future as some smaller authorities may not be able to or want to meet the increased requirements.[17] As a result, the periods between completed development and approval of new products for the European market have increased. The increased requirements and the rising costs associated with the European regulation, as well as the bottlenecks at the notified bodies, are considered the biggest obstacle to the future development of the medical technology sector according to a survey conducted by the Bundesverband für Medizintechnologie e.V. (The German Medical Technology Association, BVMed)[18]. The pressure on small and medium-sized enterprises will rise in particular. Furthermore, so-called hybrid products with a pharmaceutical character such as *aap*'s innovative silver coating technology require, in addition to a Notified Body, the consultation of a pharmaceutical body as part of the approval process, which additionally increases requirements. A refusal to grant licenses, licensing delays or the withdrawal of licenses affecting the Company's products, or the non-extension of the certificate for the entire quality management system, could have a negative impact on the future sales and profits of *aap*. The Company considers the gross risk in terms of probability to be moderate, with a moderate potential level of damage. The Company mitigates this risk by tracking developments in the field of licensing requirements with a high degree of accuracy and by monitoring regulatory changes within the scope of its implemented quality management system in great detail. One example of this is *aap*'s comprehensive quality improvement program "Quality First", which was initiated at the beginning of the 2017 financial year. The Company-wide program continued to be consistently implemented in the reporting year, and substantial progress was made once again. The quality improvement program has now been continued through the Fit 4 MDR transfer program, which aims to ensure an entire and efficient transition to the significantly increased regulatory requirements of the MDR. The Fit 4 MDR program, in cooperation with a specialist consulting firm, envisages a comprehensive GAP analysis and, for example, various training events for *aap* employees and many other subprojects in a number of different business areas. Furthermore, *aap* mitigates this risk by continuing to expand in the field of regulatory and clinical affairs and through the increasing internationalization of sales in order to cover increased costs with higher production volumes. Furthermore, the Company is already consulting the regulatory authorities in new product- cases that are real innovations, prior to the submission of the application for approval.

Patents and Intellectual Property

The possibility that third parties may assert claims against *aap* in the future due to the infringement of industrial property rights cannot be excluded. Such an infringement could delay the delivery of products under certain circumstances. In the event of a negative outcome of legal proceedings, *aap* may be obliged to enter into fee or license agreements. In this way, a lawsuit resulting from the infringement of industrial property rights against *aap* could adversely affect the assets, earnings and financial position of the Company. The Company assesses the gross risk in terms of probability to be low, with a moderate potential level of damage. *aap* mitigates this risk with an IP committee that

[17] Internet source: https://www-nzz-ch.cdn.ampproject.org/c/s/www.nzz.ch/amp/wirtschaft/europaeische-medtech-branche-fuerchtet-verspaetete-zulassungen-ld.1353386

[18] The BVMed 2019 sector report on medical technology is available on request from the association's Press Center.

regularly monitors the current developments in the patent and licensing market and secures the Group's own developments at an early stage with comprehensive patent protection. A policy has also been implemented for dealing with employee inventions in order to promote the innovativeness of the Company's employees whilst at the same time protecting the intellectual property of employees and *aap*.

Dependence on Customers and Suppliers

In 2018, *aap* generated 27% (previous year: 19%) of its sales with the Company's three largest customers. Consequently, the short-term absence or potential insolvency of one of the three largest customers could endanger the earnings and financial position of the Company. *aap* considers the gross risk in terms of probability to be moderate, with a moderate potential level of damage. *aap* is mitigating this risk by expanding its sales organization, along with further internationalization and the acquisition of additional new clients (stability, sales strength, financial strength). In addition, the Company is increasingly ensuring its cash flows are hedged in large part or in whole by means of advance payments, bank guarantees or letters of credit and also has credit insurance (bad debt). In this regard, *aap* was able to keep the DSO[19] (Day Sales Outstanding = turnover rate of receivables) almost stable due to a consistent debtor management in financial year 2018, despite a slight increase contingent upon closing day to 90 days (FY/2017: 85 days).

In response to the macroeconomic developments in the BRICS and SMIT states, which recorded comparatively weak economic development in 2015 and 2016 following relatively high growth rates in the previous years, aap increased its focus on established markets such as North America, Germany and further European countries. In this context, the Company was able to maintain its share of sales in North America and Europe (including Germany) at a consistently high level in financial year 2018. During the reporting period, *aap* generated around 64% of its total sales in North America and Europe (including Germany) (FY/2017: approx. 65%). In addition, the Company has successfully gained a large and financially strong distribution partner in the BRICS countries, which is reflected in the significant increase in sales in this group of countries, up around 32% on the previous year for financial year 2018. Such cooperations shall also be the future approach for the BRICS and SMIT countries. Nonetheless, there is always a risk of economic downswings in *aap*'s key markets. Unfavorable macroeconomic developments in these markets, which are important to *aap*, may cause the economic conditions offered to individual customers to deteriorate, which could lead to a decrease in sales and payment behavior to deteriorate, leading to payment default. The Company assesses the gross risk in terms of probability to be moderate, with a moderate potential level of damage. *aap* mitigates this risk by increasingly ensuring its cash flows are hedged in large part or in whole by means of advance payments, bank guarantees or letters of credit and also has a credit insurance (bad debt).

In addition to the products developed and produced within the Group, *aap* also rounds off the product portfolio by trading goods (trauma complementary biomaterials). Various *aap* products are developed by third-party suppliers if in-house production expertise is not available (certain instruments such as carbon fiber based target devices). Furthermore, certain production steps are provided as services by third parties (e.g. grinding of drill blanks). Such partnerships involve increased dependence on these suppliers' quality and readiness to deliver. The Company considers the gross risk of negative influences of this dependence in terms of probability to be low, with a low potential level of damage. The

[19] Definition of DSO: DSO = Accounts receivable / sales * 365.

Company accepts this risk by strategically cooperating with a few qualified suppliers with consistent quality reviews in order to secure product quality.

Product Liability Risks

The products of *aap* are intended for insertion into the human body and, in some cases, the products remain inside the body. As a result of different healing properties and varying experience of the doctors using the products, the malfunction of these products cannot be completely ruled out. To date, no significant claims for damages on the basis of product liability have been made against the Company. However, this cannot be ruled out for the future. *aap* considers the gross risk in terms of probability to be low, with a moderate potential level of damage. The Company mitigates this risk with strict quality controls and product liability insurance in the scope customary in the sector. There is a residual risk that the existing insurance coverage is not sufficient for protection against potential claims, particularly in the USA. Since *aap*'s sales activities are increasingly focused on established markets such as North America and it is generating a growing share of sales there, this risk will increase further.

Capitalization of Development Costs

In addition to internally produced goods, *aap* capitalizes expenditures for internal and development projects as a med tech company intensively focusing on development. Based on the Company's own experiences and sector analysis, it has been shown that the average development cycles for a new medical product continue to be between three and eight years. Among the factors here are the requirements for bringing medical devices to the market for the first time, which have once more significantly increased through the EU Medical Device Regulation (MDR) (for further information, please refer to the risk "Approval of Products and Certification of the Quality Management System" above). Development projects should be approached as an asset when all six criteria of IAS 38 "Intangible assets" are met. All of these six criteria are of equal importance. One of the most challenging criterion is providing evidence that the asset is likely to generate future economic benefits. In addition, the Company must demonstrate that it has the technical, financial, and other resources required to be able to complete the intangible assets. Based on the disinvestments carried out over the last few years, the Company has had a sufficiently high financial buffer to be able to finance its development activities accordingly on a long term basis. Based on the liquidity level as of December 31, 2018, various measures were initiated to strengthen the financial basis in order to be able to continue the development activities as scheduled. All capitalized development projects (those developed in-house and those which are purchased) are annually subjected to an impairment test. Any resulting impairment requirements are to be immediately recorded as extraordinary amortization in the statement of income in the year of occurrence.

Capitalized development projects must be subject to scheduled amortization over the respective duration of use upon completion of their development and initial use. The current amortization periods are between ten and 15 years. Management continually evaluates whether these amortization periods correspond to the estimated durations of use or if adjustments need to be made (e.g. shorter amortization periods). With regard to the development of the amortization of intangible assets, in particular capitalized development projects, it appears that these have increased steadily over the past few years due to the market maturity of the projects. *aap* estimates the gross risk of undesirable developments or project cancellations in terms of probability to be moderate, with a moderate potential level of damage. *aap* has implemented comprehensive measures and processes to avoid negative developments in project cancellations. These include, among other things, collaborations

with reputable and leading international scientists and physicians, for example, during the development of new trauma plate systems, the silver coating of trauma products, and the development of medical devices made of resorbable magnesium. With regard to possible liquidity risks, in terms of both assessment and measures to secure the further financing of the Company, please refer to the section **Financial Risks**. It is our clear understanding that in the future, the income effect from capitalized development projects for the period of development until the end of their economic useful life should be balanced.

Personnel Risks

aap depends on the specialized knowledge of its employees in many areas of its activities. *aap* relies on knowledge and skills of highly qualified key personnel, in particular for the development and approval of IP-protected medical devices and the development and expansion of new business activities. The Company therefore faces the risk of personnel fluctuations of qualified employees and difficulties with the recruitment of sufficiently talented staff. *aap* considers the gross risk in terms of probability to be moderate, with a moderate potential level of damage. The Company mitigates this risk by creating a work environment where all employees can contribute their full potential. In order to achieve this, *aap* positions itself as an attractive employer. The cornerstones of human resources work are supporting continuous professional development, performance-based compensation, a positive working environment and measures to create a balance between work and family life. Despite these measures and high employee satisfaction, *aap* cannot guarantee that these employees will remain with the Company or work in the necessary way.

Compliance

For *aap*, compliance is an important part of everyday business and a significant management and monitoring task. We undertake, together with our employees, to act responsibly and lawfully in order to comply with national and international laws, rules and standards, as well as company-internal guidelines. At the same time, we also require our customers and suppliers to comply with the regulations and we check this at regular intervals. In general, compliance violations by almost all Company stakeholders may lead to significant and long-term reputational damage, which can have a lasting negative impact on sales development. In relation to the German market, for example, the increasing listing at major hospital groups and purchasing associations increases the risk that *aap* will immediately lose key customers – and therefore sales – as a result of being disregarded. The traditionally high export share also makes the Company potentially susceptible to violations of certain country-specific regulations (e.g. the Sunshine Act in the USA) or to limited trade relations between individual countries (most recently e.g. USA and Iran), which can lead to severe penalty payments. *aap* considers the gross risk of its stakeholders violating compliance regulations in terms of probability as low, with a moderate potential level of damage. The Company mitigates this risk with a Company-wide compliance management system. An essential element is the Code of Conduct, which, as a binding code of practice, is intended to provide all of the Company's employees with a concrete guide to their daily activities. In addition, *aap* implemented an electronically protected whistleblower system in financial year 2018, allowing employees, customers and suppliers to (anonymously) report any existing grievances to the Company. Furthermore, *aap* regularly checks whether not only their own employees but also the employees of their customers and suppliers are on sanction lists in various countries. Company employees also attend continuous education courses and are trained accordingly. Last but not least, *aap* regularly asks external consultants to create reports on compliance-relevant issues (e.g. the Sunshine Act or trade relations between various countries).

Data Protection

Major data loss could result in serious interruptions to business operations, including production. Data abuse could also lead to a loss of important expertise and consequently the Company's competitive advantages. *aap* considers the gross risk to be low in terms of probability, with a moderate potential level of damage. The Company mitigates these risks by employing an external data protection officer and regularly instructing workers. A high level of data protection was achieved here during the reporting period. The proportion of processed personal data was further reduced by optimizing processes. A majority of employees were trained in the field of data protection. This process is maintained on a continual basis to guarantee that data protection remains at a high level. The rights of individuals, in particular with regard to the right of those affected to be kept informed, are implemented by the data protection officer in collaboration with the relevant departments. In financial year 2018, *aap* also implemented extensive measures with regard to the EU General Data Protection Regulation (GDPR), which entered into force on May 25. Examples include the deletion concepts and routines that are to be implemented throughout the Company, incident management in the event of major data loss, and the creation of comprehensive process directories. In general, since the past financial year, the topics of data avoidance and data economy within the framework of the GDPR have increasingly been a focus of the Company. Overall, *aap* pursues the goal of meeting the constantly changing and increasing requirements of a networked and digitized (working) world at an early stage and in a sustainable manner.

Furthermore, *aap* extensively renewed the entire IT infrastructure in the 2017 and 2018 financial years. This led to a significant improvement in data availability, ease of validation, contingency planning and a reduction in maintenance costs.

Legal Risks

In the Risk and Opportunity Report in the consolidated annual financial report 2017, it stated that, since the end of 2016, a contractual partner had asserted a compensation claim for approx. EUR 2.0 million out of court against a former subsidiary. For further details, please refer to the corresponding risk description in the Risk and Opportunity Report of the consolidated annual financial report 2017. The latest update is that a lawsuit was filed against the former subsidiary on August 2, 2018. The amount in dispute is $3.1 million. The procedure will be conducted by *aap* as the main party through litigation based on appropriate contractual arrangements. The assessment of the legal risk has not changed from that at the previous year's reporting date. For the expected legal and consulting expenses associated with this, we recorded a corresponding risk provision already as of December 31, 2016.

With regard to the legal risk mentioned before, the purchaser of the former subsidiary filed a claim for payment of approx. EUR 2.0 million against the Company by way of arbitration in November 2017. This is justified by a corresponding payment obligation for the Company, purportedly resulting from the share purchase agreement, to indemnify the purchaser for third party claims against the former subsidiary. As there had been no new developments in this regard as compared with December 31, 2017, the assessment of the legal risk has not changed from that at the previous year's reporting date. For the expected future legal and consulting expenses associated with this, we recorded a corresponding risk provision as early as December 31, 2017, which was adjusted as of December 31, 2018 to take into account the latest developments.

The Risk and Opportunity Report in the consolidated annual financial report 2017 mentions that in December 2017, a former distributor of the Company filed a claim for reversal and damages of approx. EUR 1.3 million against the Company. For further details, please refer to the corresponding risk description in the consolidated annual financial report 2017. In the first instance, the claim was completely dismissed on June 25, 2018. The former distributor then lodged an appeal on August 16, 2018 and the case is now being appealed. The assessment of the legal risk has not changed from that at the previous year's reporting date. For the expected future legal and consulting expenses associated with this, we recorded a corresponding risk provision as early as December 31, 2017, which was adjusted as of December 31, 2018 to take into account the latest developments.

At the end of December 2017, a claim for damages of approximately EUR 0.6 million was asserted against the Company by its Lessor with default summons. The background to this is the claim that, on the basis of the rental contract agreements, the Company would have a duty to pay compensation for costs incurred through the implementation of regulatory requirements. As there had been no new developments in this regard as compared with December 31, 2017, the assessment of the legal risk has not changed from that at the previous year's reporting date. We have already recorded a corresponding risk provision for the expected future legal and consulting expenses associated with this already as of December 31, 2017.

Summary of the Risk Situation of the Company

Overall, individual of the previously reported risks can have an effect on the continued existence of *aap*. There are further dependencies between risks to the extent that the mutually reinforcing effects may result in a threat to the existence of the Company. According to the Management Board's assessment, the risk-bearing capacity of the Company is given. The Management Board will continue to carefully monitor existing and new risks in the future and will, where appropriate, take countermeasures to ensure that the risks for *aap* remain within certain limits.

The most important individual risks for *aap* and their assessment:

Category	Risk	Probability	Level of damage
Financial risks	Liquidity risks	Low	Severe
	Interest rate risks	High	Low
	Non-payment of accounts receivable	Moderate	Low
	Price change risks	Low	Low
Market, Competition, New Products and Technologies	Response to market developments	Moderate	Severe
	Intervention in the health care system	Moderate	Moderate
	Sector consolidation	Low	Low
Approval of Products and Certification of the Quality Management System	Licensing delays/ Refusal to grant licenses or withdrawal of licenses for products or non-extension of the certificate for the entire quality management system	Moderate	Moderate
Patents and Intellectual Property	Infringement of industrial property rights	Low	Moderate
Dependence on Customers and Suppliers	Dependence on customers	Moderate	Moderate
	Negative macroeconomic developments	Moderate	Moderate
	Dependence on suppliers	Low	Low
Product Liability Risks	Claims for damages resulting from product liability	Low	Moderate
Capitalization of Development Costs	Negative developments or project cancellations	Moderate	Moderate
Personnel Risks	Lack of qualified employees	Moderate	Moderate

Compliance	Compliance violations by stakeholders	Low	Moderate
Data Protection	Data loss and abuse	Low	Moderate
Legal Risks	Details see above	Details see above	Details see above

B) Opportunities:

In addition to risks, *aap* regularly identifies and assesses the opportunities of the Company. In principle, opportunities could arise as a result of the development of medical standards or the market launch of new products. Through close dialogue with the users of the Company's products, *app* will continue to harness opportunities quickly and, additionally, create new sales potential.

Opportunities through Positive Economic Development

The general economic environment has an impact on the business development at *aap*. Our statements on the continuing development of the Group are based on the expected overall economic environment described in the Outlook. If the global economy develops more dynamically than currently assumed, our forecast for the sales, earnings and financial position could be exceeded.

Opportunities through Growth Strategy

The expansion of capacities allows us to participate in the increasing demand for health care and medical technology products. New, ultra-modern production processes continue to improve our competitive advantage. In addition, due to our comprehensive product portfolio and many years of experience, we are able to offer our customers effective solutions. If the international health care markets develop more rapidly than currently expected, this could have a positive effect on our sales and earnings position and our cash flows.

Opportunities through Research and Development

Innovations at the product and process level are the foundation of our growth strategy. We work closely with our customers and users to bring new and improved products to market. Earlier than currently expected market-readiness of our development projects could improve our sales and earnings position and our cash flows.

Opportunities through International Presence

The opening up of additional health care markets (e.g., in Asia or the Middle East) to international medical technology companies could present further opportunities for *aap*. Due to our international orientation, we have the possibility to be part of this development. This would sustainably improve the development of Company sales and earnings.

Financial Opportunities

Favorable exchange rate trends can have a potentially positive impact on the Group's earnings development. *aap* continuously analyzes the market environment in order to identify and realize opportunities in this respect.

Opportunities through Employees

Our employees are the driving force of our innovations and generate added value for *aap* through close dialogue with customers, users and patients. Their high identification with the Company fosters their motivation and sense of personal responsibility, which we want to encourage further through human resources development measures. If our measures and methods achieve faster and better progress than currently expected, this could also strengthen our competitive position. This could result in positive effects on our sales and earnings position and our cash flows.

VII. Remuneration Report

The remuneration report provides an overview of the principles of the remuneration system for the members of the Management Board and describes the structure and amount of individual members' remuneration. Furthermore, the principles of the remuneration system for members of the Supervisory Board are explained.

Management Board Remuneration

The remuneration system for the members of the *aap* Management Board is primarily aimed at providing incentives to successfully and sustainably develop the Company. In this way, the members of the Management Board shall participate in the Company's long-term and sustainable increase in value. This system rewards particularly good performance within the context of achieving targets, while failure to do so leads to reduced remuneration.

All valid Management Board contracts comply predominantly with the recommendations of the German Corporate Governance Code. The remuneration structure was oriented towards sustainable company development in accordance with the German Act on the Appropriateness of Management Board Remuneration (VorstAG; Article 87 para. 1 AktG (German Stock Corporation Act)).

The contracts of Chief Executive Officer (CEO) Bruke Seyoum Alemu and Chief Financial Officer (CFO) Marek Hahn (CFO) valid in financial year 2018 run until December 31, 2020.

The following rules apply to Management Board remuneration:

The total remuneration consists of a fixed component and a performance-related variable component. There is also an additional special bonus. The performance-related variable component corresponds to a maximum of 33% of total remuneration, excluding the special bonus. The fixed component ensures a basic remuneration that enables the individual Management Board member to perform his duties in the best interests of the Company and to fulfill his obligations with the due care and diligence of a prudent businessman without becoming dependent on attaining only short-term performance targets. The variable component, in contrast, which depends inter alia on the Company's economic result, ensures a long-term effect of the behavior incentives.

The variable remuneration relates to the attainment of both qualitative and quantitative targets. It is limited to a maximum amount and takes future corporate development into account by means of a

three-year monitoring period. The qualitative targets laid down in the Management Agenda are set by the Supervisory Board in advance while approving the annual budget and account for 10% of the variable remuneration component.

The quantitative targets account for 90%. The reference values for the quantitative variable salary component are the sales and EBITDA parameters determined for the calendar year 2018, with a weighting of 25% each. Furthermore, a variable remuneration was agreed for the start of a human clinical study for the silver coating technology, which was included in the quantitative bonus with 50%. In the previous year the determined parameters were sales and EBITDA with a weighting of 50% each.

The qualitative bonus is paid in full on target attainment one week after the following year's Annual General Meeting, whereas only 50% of the quantitative bonus is paid out at that time. The remaining 50% of the quantitative bonus is paid in equal parts after the Annual General Meeting in the second and third year after the bonus year.

If the results for the year after the bonus year and / or the second year after the bonus year are more than 30% below the quantitative target, the quantitative part of the bonus that has been withheld at that time will be forfeited. The bonus for 2018 could therefore be reduced if the targets are not met in 2019 and 2020. The bonus is only forfeited in full if both quantitative targets are not met.

If the contract begins or ends during a financial year, the bonus is paid pro rata on the assumption that the target has been achieved in full.

The special bonus has been agreed for special, extraordinary predefined transactions. Depending on the transaction, it is calculated based on a fixed percentage of a certain calculation basis. No such bonus transaction occurred during the reporting year. Under certain conditions, a follow-up protection was agreed for individual bonus-relevant transactions, which regulates the claim to the special bonus if the transaction is concluded within 18 months after the Management Board has departed. This special bonus consists of variable compensation components, which, contrary to the recommendations of Section 4.2.3 para. 2, sentence 3 and 6 of the German Corporate Governance Code in its version dated February 7, 2017, neither have a capped maximum amount nor a multi-year calculation basis. The Supervisory Board is of the opinion that the relevant remuneration elements, which include the payment of a special allowance only in the case of certain extraordinary events, provide an incentive for the Management Board in the best interests of the Company. The hereby intended alignment of the interests of shareholders and Management Board members would be undermined by imposing a ceiling on the amount. A multi-year calculation basis is precluded in the case of compensation to be granted only when particular special events occur. In connection with this special bonus, there is a special right of termination in certain cases. Accordingly, the Management Board members are first entitled to terminate the employment contract after a period of twelve months after completion of the respective transaction with a period of fourteen days to the end of the month.

The Supervisory Board is entitled to eliminate extraordinary business developments that have led to one-time additional earnings that are not the result of an increase in operating business in establishing the assessment basis for the quantitative targets.

Furthermore, the Company pays a fixed annual amount into a reinsured provident fund to build up a company pension scheme (contribution-based benefit without minimum performance) for every

Management Board member. The members of the Management Board already receive an irrevocable subscription right to insurance benefits before reaching the statutory non-forfeiture period. In accordance with the remuneration system, the members of the Management Board are entitled to a company car for unlimited use, to accident insurance and to an allowance amounting to half the private health and nursing care insurance premiums up to the employer's maximum rate if there is a statutory health and nursing care insurance obligation. In addition, Mr. Alemu receives half of the relevant maximum contribution rate for statutory pension insurance each month.

Taking into account a deductible, the members of the Management Board are included in the insurance via a pecuniary damage liability insurance policy (D&O insurance) taken out by the company.

In the event of a change of control over the Company, both Management Board members have a special right of termination that they can exercise at the end of the second month after the change of control (but not including the month in which the change of control occurred) to the end of the month with 14 days' notice. There are three cases in which a change of control entitles them to exercise this special right of termination: These are if an existing shareholder or a third party acquires at least 50% of the voting rights and thereby exceeds the mandatory offer threshold laid down in the German Acquisition and Takeover Act (WpÜG), if the Company concludes an affiliation agreement as a dependent company, or if it is merged with another company.

Management Board remuneration in the financial year 2018 was as follows:

	Remuneration components				
	Performance-unrelated	**Performance-related**	**With long-term incentivizing effect**	**Total 2018**	**Total 2017**
	KEUR	**KEUR**	**KEUR**	**KEUR**	**KEUR**
Bruke Seyoum Alemu, CEO	321	9	38	368	459
Marek Hahn, CFO	230	6	25	261	340
	551	15	63	629	799

Furthermore, both Management Board members were granted stock options under various stock option programs. Specifically, on December 31, 2018, both Management Board members had stock options from the following stock option programs with the corresponding conditions:

2010 Stock Option Program

On December 31, 2018, Bruke Seyoum Alemu had 100,000 stock options and Marek Hahn 71,000 stock options from the 2010 stock option program. The main conditions of the 2010 stock option program are as follows:

Under the 2010 stock option program, subscription rights were granted to employees and Management Board members of the Company, as well as to employees and members of the management of Company-affiliated enterprises as per Article 15 et seq. AktG. The subscription right was granted by the conclusion of an option contract between the Company and the relevant beneficiary. Each subscription right grants the holder the right to purchase one Company bearer share in return for payment of the exercise price. The exercise price of issued subscription rights is the average closing price (arithmetic mean) of the *aap* share in electronic trading (XETRA or a successor system) on the Frankfurt Stock Exchange over the five trading days that precede the first day of the acquisition period. The minimum exercise price is always the lowest issue price within the meaning of

Article 9 para. 1 AktG. The pecuniary advantage that beneficiaries achieve by exercising subscription rights (the difference between the closing price of the *aap* share in XETRA trading or a comparable successor system on the day subscription rights are exercised and the exercise price) must not be more than four times higher than the exercise price set upon issue. The subscription rights from stock options may only be exercised after a waiting period (four years from date of issue) and then up to the end of the option term (eight years from the date of issue). Subscription rights may only be exercised within a four-week period beginning on the second trading day on the Frankfurt Stock Exchange after the Company's Annual General Meeting and after the day on which the management publishes at the stock exchange for the general public the Company's annual financial report, the half-yearly financial report or the interim reports for the first or third quarter of the financial year. Subscription rights may only be exercised from the stock options if the closing price of the Company shares in XETRA trading (or a comparable successor system) on the Frankfurt Stock Exchange on the last trading day before the exercise date is at least 10% above the exercise price. As part of fulfilling their subscription rights, the Company may grant beneficiaries the choice of treasury shares or a cash settlement instead of new shares using conditional capital.

2015 Stock Option Program

On December 31, 2018, Bruke Seyoum Alemu had 89,000 stock options and Marek Hahn 61,000 stock options from the 2015 stock option program. The main conditions of the 2015 stock option program are as follows:

Under the 2015 stock option program, subscription rights were granted to members of the Management Board. The subscription right was granted by the conclusion of an option contract between the Company and the relevant beneficiary. Each subscription right grants the holder the right to purchase one Company bearer share in return for payment of the exercise price. The exercise price of issued subscription rights is the average closing price (arithmetic mean) of the *aap* share in electronic trading (XETRA or a successor system) on the Frankfurt Stock Exchange over the five trading days that precede the first day of the acquisition period. The minimum exercise price is always the lowest issue price within the meaning of Article 9 para. 1 AktG. The pecuniary advantage that beneficiaries achieve by exercising subscription rights (the difference between the closing price of the *aap* share in XETRA trading or a comparable successor system on the day subscription rights are exercised and the exercise price) must not be more than four times higher than the exercise price set upon issue. The subscription rights from stock options may only be exercised after a waiting period (four years from date of issue) and then up to the end of the option term (eight years from the date of issue). Subscription rights may only be exercised within a four-week period beginning on the second trading day on the Frankfurt Stock Exchange after the Company's Annual General Meeting and after the day on which the management publishes at the stock exchange for the general public the Company's annual financial report, the half-yearly financial report or the interim reports for the first or third quarter of the financial year. Subscription rights may only be exercised from the stock options if the closing price of the Company shares in XETRA trading (or a comparable successor system) on the Frankfurt Stock Exchange on the last trading day before the exercise date is at least EUR 3.50. As part of fulfilling their subscription rights, the Company may grant beneficiaries the choice of treasury shares or a cash settlement instead of new shares using conditional capital.

2017 Stock Option Program

On December 31, 2018, Bruke Seyoum Alemu had 120,000 stock options and Marek Hahn 80,000 stock options from the 2017 stock option program. The main conditions of the 2017 stock option program are as follows:

Under the 2017 stock option program, subscription rights were granted to employees and Management Board members of the Company, as well as to employees of Company-affiliated enterprises as per Article 15 et seq. AktG. The subscription right was granted by the conclusion of an option contract between the Company and the relevant beneficiary. Each subscription right grants the holder the right to purchase one Company bearer share in return for payment of the exercise price. The exercise price of issued subscription rights is the average closing price (arithmetic mean) of the *aap* share in electronic trading (XETRA or a successor system) on the Frankfurt Stock Exchange over the five trading days that precede the first day of the acquisition period. The minimum exercise price is always the lowest issue price within the meaning of Article 9 para. 1 AktG. The pecuniary advantage that beneficiaries achieve by exercising subscription rights (the difference between the closing price of the *aap* share in XETRA trading or a comparable successor system on the day subscription rights are exercised and the exercise price) must not be more than four times higher than the exercise price set upon issue. The subscription rights from stock options may only be exercised after a waiting period (four years from date of issue) and then up to the end of the option term (eight years from the date of issue). Subscription rights may only be exercised within a four-week period beginning on the second trading day on the Frankfurt Stock Exchange after the Company's Annual General Meeting and after the day on which the management publishes at the stock exchange for the general public the Company's annual financial report, the half-yearly financial report or the interim reports for the first or third quarter of the financial year. Subscription rights may only be exercised from the stock options if the closing price of the Company shares in XETRA trading (or a comparable successor system) on the Frankfurt Stock Exchange on the last trading day before the exercise date is at least 15% above the exercise price. As part of fulfilling their subscription rights, the Company may grant beneficiaries the choice of treasury shares or a cash settlement instead of new shares using conditional capital.

In the following tables, both the benefits granted to each member of the Management Board for the financial year and the inflows in respectively for the financial year are individually presented according to the recommendations of the German Corporate Governance Code (GCGC).

Total "granted benefits to the Management Board according to GCGC" for financial year 2018 are calculated based on

- the basic remuneration for 2018,
- taxable pecuniary benefits and other ancillary benefits in 2018,
- the qualitative bonus due for payment in 2019 and the 50% share of the quantitative annual bonus for 2018,
- the reduction of the 25% share of the bonus for 2016 and 2017, which is due in 2019, based on the budget shortfall 2018,
- the 25% share of the quantitative annual bonus for 2018 due for payment in 2020,
- the 25% share of the quantitative annual bonus for 2018 due for payment in 2021 and
- the fair value of accrued claims arising from granted stock options (SOP).

Total "granted benefits to the Management Board according to GCGC" for financial year 2017 are calculated based on

- the basic remuneration for 2017,
- taxable pecuniary benefits and other ancillary benefits in 2017,
- the qualitative bonus due for payment in 2018 and the 50% share of the quantitative annual bonus for 2017,
- the 25% share of the quantitative annual bonus for 2017 due for payment in 2019,
- the 25% share of the quantitative annual bonus for 2017 due for payment in 2020 and
- the fair value of accrued claims arising from granted stock options (SOP).

Benefits granted to the Management Board as per the GCGC (in KEUR)	Bruke Seyoum Alemu				Marek Hahn			
	CEO				CFO			
for financial year	**2017**	**2018**	**2018 (Min)**	**2018 (Max)**	**2017**	**2018**	**2018 (Min)**	**2018 (Max)**
Fixed remuneration	270	270	270	270	190	190	190	190
Ancillary services	51	51	51	51	40	40	40	40
Total	**321**	**321**	**321**	**321**	**230**	**230**	**230**	**230**
One-year variable remuneration (due in the following year)	9	9	0	14	7	6	0	10
Multi-annual variable remuneration								
Deferred bonus (due in 2018)	54	-	-	-	38	-	-	-
Deferred bonus (due in 2019)	27	0	0	61	19	0	0	43
Deferred bonus 2016 (due in 2019)	-	-4	-	-	-	-3	-	-
Deferred bonus 2017 (due in 2019)	-	-7	-	-	-	-5	-	-
Deferred bonus (due in 2020)	26	0	0	30	19	0	0	21
Deferred bonus (due in 2021)	-	0	0	30	-	0	0	21
SOP 2015 and SOP 2017	22	37	37	37	28	25	25	25
Special payment for share acquisition with holding period	-	-	-	-	-	-	-	-
Total	460	368	359	494	339	262	255	350
Pension-related expenses	-	-	-	-	-	-	-	-
Total remuneration	460	368	359	494	339	262	255	350

Total "inflows to the Management Board according to GCGC" for financial year 2018 are calculated based on

- the basic remuneration for 2018,
- taxable pecuniary benefits and other ancillary benefits in 2018 and
- the qualitative bonus and the 50% share of the quantitative annual bonus for 2017 paid in 2018 based on the Supervisory Board decision of March 27, 2018.

Total "inflows to the Management Board according to GCGC" for financial year 2017 are calculated based on

- the basic remuneration for 2017,
- taxable pecuniary benefits and other ancillary benefits in 2017 and
- the qualitative bonus and the 50% share of the quantitative annual bonus for 2016 paid in 2017 based on the Supervisory Board decision of March 28, 2017.

Inflows to the Management Board (in KEUR)	Bruke Seyoum Alemu		Marek Hahn	
	CEO		CFO	
in financial year	**2018**	**2017**	**2018**	**2017**
Fixed remuneration	270	270	190	190
Ancillary services	51	51	40	40
Total	**321**	**321**	**230**	**230**
One-year variable remuneration	9	14	7	10
Multi-annual variable remuneration				
Deferred bonus 2016 (due in 2017)	-	30	-	21
Deferred bonus 2016 (due in 2018)	15	-	11	-
Deferred bonus 2017 (due in 2018)	54	-	38	-
Special payment for share acquisition with holding period	-	63	-	44
Total	**400**	**428**	**286**	**305**
Pension-related expenses	-	-	-	-
Total remuneration	**400**	**428**	**286**	**305**

Supervisory Board Remuneration

Supervisory Board members receive a fixed annual fee of EUR 30,000.00 in addition to the reimbursement of expenses. The Company reimburses any Supervisory Board member for expenses as well as for the due value-added tax for its remuneration and the expenses as well as for any possible social contributions. Moreover, each Supervisory Board member will receive the share of the insurance premiums mathematically applicable to that Supervisory Board member for a financial loss liability insurance policy taken out by the Company for the benefit of the members of the Management Board and Supervisory Board.

VIII. Outlook

Forward-Looking Statements

The statements made here about overall economic trends and the company's development are forward-looking statements. The actual results may therefore differ materially – positively and negatively – from expectations of likely developments.

Macroeconomic Environment

The outlook for the development of the global economy in 2019 has become increasingly bleak over the past months. Most recently, the International Monetary Fund (IMF) has again revised its forecast for the current year downwards, and now expects global economic growth of around 3.5%.[20] In contrast, in 2018 the growth rate of the real, price-adjusted gross domestic product (GDP) was still approx. 3.7%. In addition to the negative effects from the trade conflict between the US and China, the IMF cited various early indicators that already pointed to a possible weakening in the second half of 2018, particularly in Asia and Europe, as the reasons for the reduced growth forecast. For example, the new German vehicle exhaust emission standards and various natural disasters in Japan burdened the national economies against a backdrop of a weaker capital market environment, trade policy uncertainties and general concerns about the outlook for the Chinese economy. At the same time, in the fourth quarter of 2018, a slowdown in industrial production outside the USA – especially in the capital goods sector – was recorded. In addition, the growth forecast also remains subject to the considerable influence of various uncertainties. Risks arise, for example, from the imminent escalation of trade policy conflicts, the normalization of monetary policy, or a possible downturn of the Chinese economy. Also in the eurozone, the political uncertainty has increased. For example due to the most recent developments in Italy following the change of government, and concerns about the upcoming exit of the United Kingdom from the European Union.[21] With regard to the outlook for the eurozone, the IMF continues to anticipate an increase in economic output, but with a lower growth rate (approx. 1.6%) than the previous year (2018: around 1.8%).[22] With respect to Germany, the Federal Government is expecting growth of around 1.0% for 2019, despite good initial domestic economic conditions against the backdrop of economic forecasts for the global economy, after the price-adjusted GDP increased by 1.5% in 2018.[23] Also for the US the expected growth rate for 2019 is somewhat lower

[20] Internet source: https://www.imf.org/en/Publications/WEO/Issues/2019/01/11/weo-update-january-2019
[21] Internet source: https://www.imf.org/en/Publications/WEO/Issues/2019/01/11/weo-update-january-2019
[22] Internet source: https://www.imf.org/en/Publications/WEO/Issues/2019/01/11/weo-update-january-2019
[23] The German Federal Government's annual economic report for 2019 is available from the German Federal Ministry for Economic Affairs and Energy.

than that of the previous year at approx. 2.5% (2018: around 2.9%), based on the continued rise in interest rates and the weakening impulses from the fiscal policy.[24]

The MedTech Environment

The medical technology sector continues to be considered a growth market with positive prospects. The 2019 sector report on medical technology from the Bundesverband für Medizintechnologie e.V. (the German Medical Technology Association, BVMed) identifies the progress in medical technology, demographic change and increased health consciousness with a view to securing a better quality of life as factors which should further increase the demand for health services[25]. With regard to the quantitative prospects of the world market for medical technology, market researchers from Evaluate MedTech are forecasting an average growth of 5.6% for the years between 2017 and 2024.[26]

Orthoworld Inc. anticipates annual growth rates between 3.7% and 3.9% for the global orthopedic industry in the years 2018 to 2022.[27] Within orthopedics, the company anticipates growth rates of 4.6% to 5.0% for the years 2018 to 2021 for the global trauma market. Accordingly, it is expected that sales of trauma products will exceed the threshold of approx. USD 8.7 billion in the year 2022. For the plates and screws subsegment of the trauma sector, analysts expect an average annual growth rate (CAGR[28]) of around 7.0% for the years 2017 to 2021[29].

Strategy and Long-Term Outlook

Within orthopedics *aap* has focused on trauma. The Management Board believes that this fast-growing segment presents good opportunities to gain market share through product and technology innovation.

As a pure player in trauma, *aap* develops innovative platform technologies and products in response to unmet needs and challenges. The Company has identified three key market needs: simplifying operation techniques for im- and explantation of the implant, reducing surgical site infections (SSI), and avoiding the need for a second operation to remove the implant by using resorbable metal implants. The three innovative platform technologies LOQTEQ® (successfully marketed since 2011), antibacterial silver coating (in the approval process), and resorbable magnesium implants (under development) address precisely these needs and thus offer considerable growth potential. With its LOQTEQ® products *aap* is active in the fastest growing trauma segments. Furthermore, silver coating and magnesium implants technologies can lower health care system costs significantly by reducing infection risks respectively avoiding a second operation. With this innovative IP-protected product and technology portfolio and its focused business model, *aap* is in an excellent position to exploit the opportunities in the dynamically growing trauma market.

A further major objective of the Company's strategy is to unlock the inherent value of this innovative product and technology base. Since all *aap* platform technologies are predestined to develop their full value potential in cooperation with global partners, the Company is regularly evaluating strategic

[24] Internet source: https://www.imf.org/en/Publications/WEO/Issues/2019/01/11/weo-update-january-2019
[25] The BVMed 2019 sector report on medical technology is available on request from the association's Press Center.
[26] The BVMed 2019 sector report on medical technology is available on request from the association's Press Center.
[27] Source:"The Orthopaedic Industry Annual Report 2018"; available on request from Orthoworld Inc.
[28] CAGR = Compound Annual Growth Rate
[29] Internet source: https://www.researchandmarkets.com/publication/msyrkjc/4403373

alternatives to value generation and enhancement in this context. These include, among other things, co-development partnerships, distribution and license agreements as well as joint venture agreements to corporate transactions (e.g. merger, share or asset deals as well as carve outs).

In sales terms, as part of its growth strategy, *aap* focuses on Germany and the international key markets North America, Europe and the BRICS states.

Outlook for 2019

For financial year 2019 the Management Board anticipates a sales increase to a value of EUR 13.0 million to EUR 15.0 million, corresponding to a growth between about 20% and 40%. *aap* also plans to improve EBITDA and expects a value of EUR -4.4 million to EUR -2.8 million for the current year.

All markets shall contribute to the planned sales growth and earnings improvement. *aap* is confident that with the measures already initiated in North America a dynamic sales development can be shown again in 2019. At the same time, the positive growth trend in Germany and in international business shall be continued. *aap* is also working towards strategic partnerships with global orthopedic companies (distribution networks, licensing deals as well as product development and approval projects).

On the costs side the Management Board anticipates, with the exception of sales-related costs, a declining trend in other expenses. In case of an approval of the human clinical study for the silver coating technology by the competent authorities, development costs and capitalised own work will increase. Last but not least, the one-time effects (e.g. external staff and evaluation of strategic options) burdening in financial year 2018 shall reduce this year.

For financial year 2019 and the following years, the Management Board has set itself the goal of achieving significant sales growth, and further developing the Company's pioneering and innovative silver coating technology and to receive market approval. Based on the strategic alignment of the Company, the planned sales growth and the targeted start of the human clinical study different measures to strengthen the financial base are necessary. In this context, the Company announced in mid-April that it had adopted a package of measures and will implement it shortly. This includes, besides a capital increase with subscription rights, two asset-based financings. Based on the inflows from the financing measures, and further cash inflows to a similar extent from technology-related transactions (e.g. outlicensing of technologies, joint venture agreements with a carve-out of technologies or involving other companies in joint development of products), from public funds and due to the conclusion of legal disputes, the company's financing shall be sustainably secured at least by end of 2020.

For the first quarter of 2019, the Management Board initially expected sales of EUR 2.0 million to EUR 3.0 million and EBITDA to be in a range of EUR -1.8 million to EUR -1.2 million. In an ad hoc statement dated April 2, 2019, the Company announced that, after preliminary evaluations, sales in the first quarter of 2019 amounted to approx. EUR 3.5 million and were therefore approx. EUR 0.5 million or around 17% above the guidance communicated in January 2019 (Q1/2019 sales: EUR 2.0 million to EUR 3.0 million). Against the backdrop of this development, the Management Board now expects an

EBITDA of between EUR -1.2 million and EUR -0.9 million for the first quarter of 2019 (previously: EUR -1.8 million to EUR-1.2 million). The Management Board continues to maintain its original forecast for sales of between EUR 13.0 million and EUR 15.0 million, and an EBITDA of between EUR -4.4 million and EUR -2.8 million for the full year 2019.

With regard to its innovative antibacterial silver coating technology, *aap* submitted the application for approval to conduct a human clinical study to the German Federal Institute for Drugs and Medical Devices ("BfArM") at the end of the financial year 2018. In doing so, the company has reached another important milestone on the way to start a human clinical study as precondition for the targeted market approval of the silver coating technology. In the meantime, *aap* has already entered into a promising exchange with BfArM and has submitted the corresponding applications to the ethics commissions of the different German federal states where the hospitals in which the human clinical study is to be undertaken are located. The next step is to submit the application in the United States. On the basis of the current status of the preparations and in particular against the background of the required time for interaction with the competent authorities, which is hardly predictable, *aap* targets to start the study in the first half of 2019. With regard to financing, *aap* is also working towards receiving grants for conducting the human clinical study against the background of the confirmation for a funding for costs arising within the scope of the preparation of the received from the Federal Ministry of Education and Research ("BMBF") in 2018.

Based on an indication coverage of more than 90% already achieved in major bone fractures, *aap* plans to further complete the LOQTEQ® portfolio during the financial year 2019. Product development activities will particularly focus on polyaxial fixation technology, plate systems for the foot and ankle areas, as well as sterile packed implants.

The launch of the human clinical study for the silver coating technology and the further completion of the LOQTEQ® portfolio are expected to bring further opportunities for transactions with global orthopedic companies.

Not least the Company will also in 2019 continue to work on various measures for the step-up strategy implementation to develop *aap* into a sustainably growing pure player in trauma and to unlock the inherent value of the promising and innovative product and technology base.

After the successful first year 2017 as pure player in trauma, with a trauma sales increase of 20%, the year 2018 overall fell short of expectations. Based on the measures already initiated and planned, the Management Board is confident to show a sales development above the average market growth in financial year 2019 again. In detail, the Management Board has specified its targets for the current financial year as a Management Agenda in four strategic and operational action areas: "Accelerating value-based innovations", "Enhancing market access", "Optimizing operational efficiency", and "Realization of financial targets". Thereby the capital market and the general public shall obtain a better understanding of the operative and strategic framework in which targets are set and their implementations are measured.

Management Agenda Targets for 2019

Accelerating Value-Based Innovations
Silver coating technology – Application on LOQTEQ®: Start of the human clinical study targeted for H1/2019
Silver coating technology – Development projects with global companies: Initiation of joint product development and approval projects
LOQTEQ®: Further completion of LOQTEQ® portfolio with a focus on polyaxial fixation technology, plate systems for the foot and ankle areas as well as implants in sterile packaging

Enhancing Market Access
Germany: Increase of market presence
International key markets: Extension of distribution network with focus on North America, Europe and BRICS
Global partnerships: Distribution networks and licensing deals with global orthopaedic companies

Optimizing Operational Efficiency
Quality first: Consequent continuation of the company-wide quality improvement program; adaption of processes and documents to new increased regulatory requirements according to MDR within the transfer program Fit 4 MDR
Production and sales efficiency: Increase of ability to provide timely deliveries and performance per sales employee
Working capital: Optimisation of working capital management with a higher inventory turnover inter alia by a strict consignment management

Realization of Financial Targets
Sales: Sales of EUR 13.0 million and EUR 15.0 million
EBITDA: EBITDA of EUR -4.4 million to EUR -2.8 million
Financing: Strengthening of financial base for sales growth, human clinical study silver and further development magnesium

General Outlook on the Company's Expected Development

Based on the assumptions explained with regard to the development of the global economy in general and the med tech sector in particular, we are expecting *aap*'s business development to be positive. We expect increasing sales for the financial year 2019 and beyond, and aim to improve the EBITDA.

Overall, we expect that *aap* will be able to generate a positive result in the foreseeable future and will thus achieve a corresponding self-financing capability, in particular through further sales growth and the implementation of technology-based transactions. Assuming that no technology-based transactions can be implemented, the Management Board expects, at least for the years 2019 and 2020, to have an improved, but still negative, EBITDA and a negative operating cash flow.

However, it is possible that the expectations and assumptions underlying this plan may prove inaccurate. For example, a significant shortfall in expected cash inflows from current business activities, unexpected additional expenses associated with the development of silver coating technology or lack of success in marketing, additional investments being required, delays in projects, or cost increases could all lead to a short-term liquidity requirement. Furthermore, it cannot be guaranteed that the Company will be able to generate a positive result in the foreseeable future

meaning that for the foreseeable future the Company could be dependent on equity or borrowed capital to provide its financial resources.

Based on the underlying corporate planning and the further planned development of the Company, measures are required to secure financing. To this end, the Company announced in mid-April that it had adopted a package of measures and will implement it at short-notice. These financing measures over the next few months are expected to provide the Company with at least a total of approx. EUR 4.0 million. If the Company does not succeed to a sufficient extent in concluding the two asset-based agreements, or in developing other alternative financing sources, and if the inflow of funds is therefore limited to the existing declarations of commitment from existing shareholders amounting to EUR 2.3 million as part of the capital increase, the Company will have to undertake significant operational and strategic corrections that could lead to the further development of the Company being endangered.

Based on the Company's liquidity position as of December 31, 2018, the aforementioned inflows from the announced financing measures and the realization of the planned sales growth, the financing requirement is covered for the next 12 months at least. In addition, the Management Board expects that cash inflows from technology-related transactions and other aforementioned measures will be generated in similar amounts, which should secure the financing of the Company (planned sales growth and the intended development and approval activities) in the long term, at least until the end of 2020.

Our clear focus on sustainable innovations and the continual improvement of our products and processes make it possible for us to be able to participate in the growing med tech industry. The three IP-protected platform technologies LOQTEQ®, antibacterial silver coating and resorbable magnesium implants offer considerable growth potential. Unlocking the inherent value of these technologies is an essential goal of the Company's further strategic alignment. However, this objective entails a number of risks: it may cause delays in entering established markets and expanding existing markets. In addition, in particular against the background of the significantly increased regulatory requirements from the EU Medical Device Regulation (MDR) that entered into force on May 25, 2017, product approvals could be delayed or completely refused, particularly with regard to future technologies silver coating and resorbable magnesium implants. Also approvals for products which are already marketed could be revoked. Among other things, this could lead to the non-extension of the certificate for the entire quality management system.

The Management Board is confident to continue *aap*'s growth path by consistently implementing the above strategy, and to unlock the inherent value of the innovative product and technology base.

IX. Disclosures pursuant to Art. 289a (1) and Art. 315a (1) of the German Commercial Code (HGB)

1. Composition of Subscribed Capital

As of December 31, 2018, the share capital of *aap* amounted to EUR 28,706,910.00 divided into 28,706,910 fully paid-in bearer shares. Each share entitles the holder to one vote at the Company's Annual General Meeting. There are no differences in voting rights.

Changes compared with December 31, 2017:

As of December 31, 2017, the share capital of *aap* amounted to EUR 28,644,410.00 divided into 28,644,410 fully paid-in bearer shares. The Company issued a total of 62,500 bearer shares to fulfill subscription rights from stock options exercised in financial year 2018. The new and now current share capital ratio was entered into the commercial registry on February 1, 2019.

2. Constraints concerning voting rights or transfer of shares

aap is not aware of any constraints concerning voting rights. The legal provisions apply to the exercise of voting rights by shareholder associations, banks and other persons acting in a commercial capacity. Article 135 of the German Stock Corporation Act (AktG) applies in particular in this regard. *aap* is not aware of any constraints concerning the transfer of shares.

3. Direct or indirect shareholdings in the share capital exceeding 10% of the voting rights

As far as *aap* is aware, the following direct or indirect shareholdings in the share capital of EUR 28,706,910.00 exceeding 10% of voting rights existed as at December 31, 2018:

Name	Voting rights in %
1. Ratio Capital Management B.V.	15.81
2. Noes Beheer B.V.	11.68
3. Jürgen W. Krebs	11.55

4. Owners of shares with special entitlements granting control rights

There are no shares with special entitlements granting control rights in respect of *aap*.

5. Type of control of voting rights in case of shareholding employees who do not directly exercise their control rights

If *aap* employees hold an interest in the Company's share capital, they may exercise the rights they are entitled to as a result of these shares directly as per the provisions of the articles of association and the law.

6. Statutory provisions and rules in the articles of association on the appointment and recall of members of the Management Board and on changes to the articles of association

The appointment and dismissal of members of the Management Board are governed by Articles 84 f. of the German Stock Corporation Act (AktG) and by the Company's articles of association. According to the Company's articles of association, the Management Board consists of one or more members. The Supervisory Board specifies the number of members of the Management Board and appoints them. The Supervisory Board can appoint a member of the Management Board as chairman and another as deputy chairman. The Supervisory Board dismisses members of the Management Board. The Management Board members are appointed for a maximum of five years. A reappointment or an extension of the term of office for an additional five years is permissible. The Supervisory Board can revoke the appointment of a Management Board member before the term of office expires for good cause, such as a gross breach of duty, inability to properly perform management duties, or if the Annual General Meeting passes a vote of no confidence in the Management Board member unless the vote of no confidence was passed for obviously arbitrary reasons.

Amendments to the articles of association must be made in accordance with the provisions set forth in Articles 179 ff. of the German Stock Corporation Act (AktG) and the Company's articles of association. According to the Company's articles of association, the Supervisory Board is authorized to adopt amendments to the articles that affect only the wording thereof.

7. Powers of Management Board to issue and buy back shares

The authorization in accordance with Article 71 para. 1 no. 8 of the German Stock Corporation Act (AktG) to acquire treasury shares, granted by the Annual General Meeting held on June 13, 2014, which remained until June 12, 2019, was revoked prematurely by the Annual General Meeting's resolution of June 22, 2018.

The Annual General Meeting held on June 22, 2018 authorized the Company, in accordance with Article 71 para. 1 no. 8 AktG, to acquire treasury shares up to a total notional amount of 10% of the share capital of the Company existing at the time of the adoption of the resolution in question until June 21, 2023. The shares acquired together with the other treasury shares held by or attributed to the Company in accordance with Article 71a et seqq. AktG may at no time exceed 10% of the share capital. The authorization must not be used for the purpose of trading in treasury shares. The authorization can be exercised by the Company or by third parties, in full or partial amounts, on one or more occasions, on behalf of the Company for one or more purposes. The acquisition takes place at the discretion of the Management Board, either on the stock exchange, through a public offer, or as a public invitation to make such an offer. The Management Board is authorized to use Company shares acquired on the basis of this authorization for all legally permissible purposes, also in particular for the purposes stated in the authorization. The right of shareholders to subscribe to these treasury shares is excluded insofar as these shares are used for the purposes detailed in the authorization or if compensation for fractional amounts is required in a sale to all shareholders.

With the consent of the Supervisory Board, the Management Board is authorized to increase the share capital of the Company once or several times up to a total of EUR 6,959,963.00 until June 12, 2019 in an exchange for cash or investments in kind (Authorized Capital 2014/I) and to also establish the conditions of the share issue with the consent of the Supervisory Board. The new shares

are generally to be offered to the shareholders for subscription. They can also be offered by one or more financial institutions or by one or more equivalent institutions as long as they are offered to the shareholders for subscription (indirect subscription right). The Management Board is authorized to exclude the subscription rights of shareholders with the consent of the Supervisory Board for the purposes detailed in the authorization.

The Annual General Meeting held on July 16, 2010 approved a conditional increase in the share capital by up to EUR 1,486,000.00 through the issue of up to 1,486,000 new bearer shares in the Company with dividend entitlement from the beginning of the financial year in which they are issued (Conditional Capital 2010/I). The Conditional Capital 2010/I serves the purpose of fulfilling the exercise of subscription rights granted by December 19, 2011 on the basis of the authorization approved by the Annual General Meeting held on July 16, 2010. The conditional capital increase shall only be carried out insofar as holders of stock options exercise their right to subscribe to shares of the Company and the Company does not grant treasury shares or a cash settlement to fulfil the subscription rights. The Annual General Meeting held on July 6, 2012 partially waived the Conditional Capital 2010/I in the amount of EUR 139,400.00, and the Annual General Meeting held on June 16, 2017 partially waived the Conditional Capital 2010/I in the amount of EUR 854,100.00. In addition, 29,000 subscription rights were exercised in financial year 2017 and 167,500 in financial year 2018, granted by December 19, 2011 on the basis of the authorization approved by the Annual General Meeting held on July 16, 2010. Furthermore, a total of 105,000 subscription rights expired in financial year 2018 in accordance with the provisions of the stock option program and these may not be reissued. The Company's share capital is therefore increased conditionally by up to EUR 191,000.00 through the issue of up to 191,000 new bearer shares in the Company.

The Annual General Meeting held on July 6, 2012 approved a conditional increase in the share capital by up to EUR 300,000.00 through the issue of up to 300,000 new bearer shares in the Company with dividend entitlement from the beginning of the financial year in which they are issued (Conditional Capital 2012/I). The Conditional Capital 2012/I serves the purpose of fulfilling the exercise of subscription rights granted by December 19, 2014 on the basis of the authorization approved by the Annual General Meeting held on July 6, 2012. The conditional capital increase shall only be carried out insofar as holders of stock options exercise their right to subscribe to shares of the Company and the Company does not grant treasury shares or a cash settlement to fulfil the subscription rights. The Annual General Meeting held on June 16, 2017 partially waived the Conditional Capital 2012/I in the amount of EUR 182,000.00. In addition, 33,000 subscription rights were exercised in the 2017 financial year and 40,000 in the 2018 financial year, granted by December 19, 2014 on the basis of the authorization approved by the Annual General Meeting held on July 6, 2012. The Company's share capital is therefore increased conditionally by up to EUR 45,000.00 through the issue of up to 45,000 new bearer shares in the Company.

The Annual General Meeting held on June 14, 2013 approved a conditional increase in the share capital by up to EUR 300,000.00 through the issue of up to 300,000 new bearer shares in the Company with dividend entitlement from the beginning of the financial year in which they are issued (Conditional Capital 2013/I). The Conditional Capital 2013/I serves the purpose of fulfilling the exercise of subscription rights granted by December 19, 2015 on the basis of the authorization approved by the Annual General Meeting held on June 14, 2013. The conditional capital increase shall only be carried out insofar as holders of stock options exercise their right to subscribe to shares of the Company and the Company does not grant treasury shares or a cash settlement to fulfil the subscription rights. The

Annual General Meeting held on June 16, 2017 partially waived the Conditional Capital 2013/I in the amount of EUR 182,000.00. In addition, 5,000 subscription rights were exercised in the 2018 financial year, which were granted by December 19, 2015 on the basis of the authorization approved by the Annual General Meeting held on June 14, 2013. The Company's share capital is therefore increased conditionally by up to EUR 113,000.00 through the issue of up to 113,000 new bearer shares in the Company.

The Annual General Meeting held on June 13, 2014 approved a conditional increase in the share capital by up to EUR 300,000.00 through the issue of up to 300,000 new bearer shares in the Company with dividend entitlement from the beginning of the financial year in which they are issued (Conditional Capital 2014/I). The Conditional Capital 2014/I serves the purpose of fulfilling the exercise of subscription rights granted by December 18, 2016 on the basis of the authorization approved by the Annual General Meeting held on June 13, 2014. The conditional capital increase shall only be carried out insofar as holders of stock options exercise their right to subscribe to shares of the Company and the Company does not grant treasury shares or a cash settlement to fulfil the subscription rights. The Annual General Meeting held on June 16, 2017 partially waived the Conditional Capital 2014/I in the amount of EUR 105,000.00. Furthermore, a total of 30,000 subscription rights forfeited as a result of the departure of a person entitled to exercise options in accordance with the provisions of the stock option program and these may not be reissued. The Company's share capital is therefore increased conditionally by up to EUR 165,000.00 through the issue of up to 165,000 new bearer shares in the Company.

The Annual General Meeting held on June 12, 2015 approved a conditional increase in the share capital by up to EUR 150,000.00 through the issue of up to 150,000 new bearer shares in the Company with dividend entitlement from the beginning of the financial year in which they are issued (Conditional Capital 2015/I). The Conditional Capital 2015/I serves the purpose of fulfilling the exercise of subscription rights granted by December 19, 2017 on the basis of the authorization approved by the Annual General Meeting held on June 12, 2015. The conditional capital increase shall only be carried out insofar as holders of stock options exercise their right to subscribe to shares of the Company and the Company does not grant treasury shares or a cash settlement to fulfil the subscription rights.

The Annual General Meeting held on June 16, 2017 approved a conditional increase in the share capital by up to EUR 500,000.00 through the issue of up to 500,000 new bearer shares in the Company with dividend entitlement from the beginning of the financial year in which they are issued (Conditional Capital 2017). The Conditional Capital 2017 serves the purpose of fulfilling the exercise of subscription rights granted by December 3, 2019 on the basis of the authorization approved by the Annual General Meeting held on June 16, 2017. The conditional capital increase shall only be carried out insofar as holders of stock options exercise their right to subscribe to shares of the Company and the Company does not grant treasury shares or a cash settlement to fulfil the subscription rights.

8. Considerable agreements of the Group conditional upon a change of control as a result of a takeover bid

In order to prematurely terminate a long-term license agreement, *aap* concluded a termination agreement in 2016 which grants the contractual partner payments over a period of three years, the amount of which depends on the achievement of certain sales in the future. This termination agreement stipulates that, in the event that *aap*'s shareholder structure changes in such a way that a

previous or new shareholder directly or indirectly holds more than 50% of the shares, the contractual partner shall be entitled to immediate payment of the outstanding compensation payments.

In *aap*'s client agreements with sales volumes of at least EUR 100,000 in financial year 2018, 13 agreements provide for termination rights in favor of the respective contractual partner in the event that *aap*'s shareholder structure changes in such a way that at least 50% of the shares are acquired directly or indirectly and this is likely to adversely affect the interests of the other party. This right is otherwise also available to *aap*.

9. Compensation agreements of the Group with members of the Management Board or staff in the event of a takeover bid

In the event of a "change of control", the directors have a special right of termination and will receive a payment amounting to 90% of their capitalized total annual payments (annual basic salary, target bonus on the assumption that all objectives will be fulfilled by the end of the contract, and fringe benefits) for the remaining term of their employment contracts, totaling a maximum of three years' total remuneration.

X. Supplementary Report

For details, please refer to the section **Events after the balance sheet date** under **Other disclosures** in the consolidated notes respectively the notes.

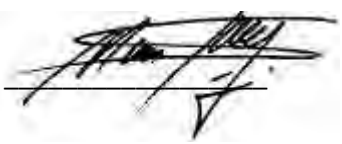
XI. Corporate Governance Statement pursuant to Art. 289f and 315d of the German Commercial Code (HGB)

The Management Board of *aap* Implantate AG made a corporate governance statement pursuant to Art. 289f and 315d of the German Commercial Code (HGB) with date of April 20, 2019 and made this publicly accessible on the website under

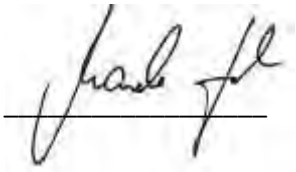
https://www.aap.de/investor-relations/corporate-governance/corporate-governance-declaration.

Berlin, April 30, 2019

The Management Board



Bruke Seyoum Alemu
Chairman of the Management Board / CEO



Marek Hahn
Member of the Management Board member / CFO

C. Consolidated Financial Statements

I. Consolidated Statement of Financial Position

	Notes	12/31/2018	12/31/2017
Assets		**KEUR**	**KEUR**
Non-current assets		**22,493**	**21,704**
Intangible assets	E.1.	13,286	11,847
Capitalized Services		13,069	11,740
Other intangible assets		217	107
Tangible assets	E.2.	6,876	7,196
Financial assets	E.3.	183	192
Other finanacial assets		560	1,065
Deferred taxes	E.4.	1,589	1,405
Current assets		**19,728**	**28,766**
Inventories	E.5.	9,617	9,617
Accounts receivable (trade debtors)	E.6.	2,663	2,543
Other financial assets	E.7.	2,850	3,001
Other assets	E.8.	337	326
Cash and cash equivalents	E.9.	4,260	13,279
Total assets		**42,221**	**50,469**

	Notes	12/31/2018	12/31/2017
Liabilities and shareholders' equity		**KEUR**	**KEUR**
Shareholders´equity	E.10.	**34,919**	**42,559**
Subscribed Capital		28,707	28,644
Capital reserve		19,999	19,865
Revenue reserve		11,776	11,286
Other reserve		0	490
Consolidated Balance Sheet profit / loss		-25,673	-18,007
Currency conversion differences		110	280
Non-current liabilities (above 1 year)		**2,630**	**2,790**
Financial liabilities	E.13.	0	5
Other financial liabilities	E.14.	343	744
Deferred taxes	E.4.	1,517	1,326
Provisions	E.12.	37	37
Other liabilities	E.15.	733	679
Current liabilities (up to 1 year)		**4,671**	**5,121**
Financial liabilities	E.13.	5	333
Trade accounts payable	E.13.	2,149	1,752
Other financial liabilities	E.14.	1,796	1,922
Provisions	E.12.	239	713
Other liabilities	E.15.	482	401
Total liabilities and shareholders' equity		**42,221**	**50,469**

II. Consolidated Statement of Comprehensive Income

	Notes	2018	2017
		KEUR	KEUR
Sales	D.1.	10.781	10,902
Changes in inventories of finished goods and work in progress		-33	-541
Other own work capitalized	D.2.	1.891	1,307
Total operating performance		**12.639**	**11,668**
Other operating income	D.3. and D.9.	465	756
Cost of purchased materials and services	D.4.	-2,340	-1,872
Personnel expenses	D.5.	-7,777	-7,386
Other operating expenses	D.7. and D.9.	-9,404	-9,373
Other taxes		10	-4
EBITDA		**-6,406**	**-6,211**
Depreciation of tangible assets and intangible assets	D.6.	-1,726	-1,783
EBIT		**-8,132**	**-7,994**
Financial result	D.8.	484	-1,307
EBT		**-7,648**	**-9,301**
Income tax	D.10.	-18	29
Net result/ Total comprehensive income		**-7,666**	**-9,271**
Other comprehensive Income		-170	**330**
Other net result		**-7,836**	**-8,941**
Earnings per share (undiluted) in EUR	D.11.	-0,27	-0.31
Earnings per share (diluted) in EUR	D.11.	-0,27	-0.31
Weighted average shares outstanding (undiluted) in thousand pieces		28.707	28,644
Weighted average shares outstanding (diluted) in thousand pieces		28.813	28,758

III. Consolidated Statement of Cash Flows

See Notes E.9.	01/01 – 12/31/2018	01/01 – 12/31/2017
	KEUR	KEUR
Net income after tax	**-7.666**	**-9,271**
Changes in working capital	**616**	**102**
Share-based compensation	121	95
Depreciation and appreciation on fixed assets	1,726	1,783
Loss / Profit from the disposal of fixed assets	2	35
Change in provisions	-474	338
Changes in other assets and receivables	59	-117
Changen in other liabilities	-338	1,559
interests allowance and income	37	45
corporate tax allowance / income	11	1
Income tax payments	-11	2
Cash flow from operating activities	**-5,919**	**-5,428**
Outgoing payments from investing activities	-810	-701
Outflow for invest of intangible assets	-2,163	-1,357
Incoming payments from disposal of investments and assets	9	0
Other in- and outflows from investment grants	0	542
Interests received	-7	3
Cash flow from investment activity	**-2,971**	**-1,513**
Inflows from equity injections	76	72
Payment for share buyback to shareholders of parent company	-0	-3,420
Payment for costs of share buyback	0	-23
Outflows for redumption of loans	-333	-922
Outflows for redumption of finance lease	-466	-475
Inflows from regranting of loan securities	594	1,283
Interests paid	-30	-48
Cash flow from financial activities	**-159**	**-3,533**
Change of liquidity from exchange rate changes	29	-21
Increase / Decrease in cash & cash equivalents	-9,019	-10,495
Cash & cash equivalents at beginning of period	13,279	23,774
Cash & cash equivalents at end of period	**4,260**	**13,279**

IV. Consolidated Statement of Changes in Equity

See Notes E.10.				Revenue reserves		Non-cash changes in equity				
All figures in KEUR	**Subscribed capital**	**Initial capital payments made for completion of agreed capital increase**	**Capital reserve**	**Legal reserves**	**Other revenue reserves**	**Revaluation reserve**	**Difference from currency translation**	**Total**	**Balance sheet result***	**Total**
Stand 01/01/2018	**28,644**	**0**	**19,865**	**42**	**11,244**	**490**	**280**	**770**	**-18,007**	**42,559**
Increase in shares	63		13					0		76
Share buyback program	-							0		0
Stock options			121					0		121
Income of the group as of 12/31/2018								0	-7,666	-7,666
Currency conversion differences							-170	-170		-170
Reclassifications					490	-490		0		0
Total comprehensive income	63	0	134	0	490	-490	-170	-660	-7,666	-7,640
Stand 12/31/2018	**28,707**	**0**	**19,999**	**42**	**11,734**	**0**	**110**	**110**	**-25,673**	**34,919**
Stand 01/01/2017	**30,832**	**0**	**17,511**	**42**	**14,687**	**490**	**-50**	**440**	**-8,736**	**54,776**
Increase in shares	62		10					0		72
Share buyback program	-2,250		2,250		-3,442			0		-3,442
Stock options			95					0		95
Income of the group as of 12/31/2017								0	-9,271	-9,271
Currency conversion differences							330	330		330
Reclassifications								0		0
Total comprehensive income	-2,188	0	2,354	0	-3,442	0	330	330	-9,271	-12,217
Stand 12/31/2017	**28,644**	**0**	**19,865**	**42**	**11,244**	**490**	**280**	**770**	**-18,007**	**42,559**

V. Notes

A. Information About the Company

The parent company of the Group, *aap* Implantate AG, is headquartered in Germany, 12099 Berlin, Lorenzweg 5. The company's shares are traded on the Frankfurt Stock Exchange under the securities identification number (WKN) 506 660. Since May 16, 2003, the company's shares have been listed under the same WKN on the Prime Standard, a regulated market segment that imposes further post-admission obligations. The company is registered at the Berlin-Charlottenburg district court under HRB 64083 and was entered into the court's commercial register on September 10, 1997.

The consolidated financial statements for the financial year from January 1, 2018 to December 31, 2018 comprise *aap* Implantate AG and its subsidiaries. The Group is a company in the medical technology sector. The Group's business activities consist of the development, production and marketing of trauma products for orthopedics. The Group's production facility is located in Germany. Its principal sales areas are North America, Germany, and Western Europe.

B. Accounting Methods

Basic Principles for the Preparation of the Consolidated Financial Statements

The consolidated financial statements of *aap* Implantate AG as of December 31, 2018 were drawn up in accordance with the International Financial Reporting Standards (IFRS) as applied in the European Union and the additional provisions required under German commercial law as specified in Section 315e para. 1 of the German Commercial Code (Handelsgesetzbuch / HGB). In principle, all International Financial Reporting Standards (IFRS) that are mandatory as of the reporting date and all interpretations of the International Financial Reporting Standards Interpretations Committee (IFRS IC) are applied in the consolidated financial statements.

The consolidated financial statements consist of the consolidated statement of financial position, the consolidated statement of comprehensive income, the consolidated statement of cash flows, the consolidated statement of changes in equity and the notes to the consolidated financial statements.

The consolidated statement of comprehensive income is structured in accordance with the total cost method. The balance sheet is structured in accordance with the maturities of assets and liabilities. An asset or liability is classified as current if its realization, consumption or sale is expected within the customary business cycle, if the asset or liability is held primarily for trading purposes or if realization is expected within 12 months.

The consolidated statement of cash flows was prepared in accordance with IAS 7 using the indirect method. It is structured according to the payment flows from operating, investing and financing activities. There are no fixed-term disposal restrictions on cash and cash equivalents. The effects of exchange rate fluctuations are shown separately.

The consolidated financial statements are based on the annual financial statements of the Group companies, which were prepared using the uniform accounting and valuation methods of the parent company, in accordance with the German Commercial Code and the German Stock Corporation Act (Aktiengesetz / AktG) respectively the local accounting principles. The conversion to IFRS was made at the level of the individual companies.

The consolidated financial statements are prepared in euros (EUR). Unless otherwise indicated, all amounts are presented rounded to thousand euros (KEUR). It should be noted that differences may occur when using rounded amounts and percentages.

The consolidated financial statements of *aap* were drawn up on the basis of the historic costs of acquisition and manufacture. In general, the historic costs of acquisition and manufacture are based on the fair value of the financial consideration given in return for the asset. The significant accounting methods are discussed below. Unless otherwise stated, the methods described were applied consistently during the reporting periods presented.

The consolidated financial statements contain comparative information relating to the preceding reporting period.

The Management Board of *aap* Implantate AG is responsible for the preparation, completeness and accuracy of the consolidated financial statements and the combined management report for the annual financial statements and the consolidated financial statements. The management continues to assume that the company will continue its activities as a going concern. Regarding the existing liquidity risks, which, in the worst case, might endanger the continued existence of the Group, please refer to section 3. Management of financial risks under F. Reporting on financial instruments.

Consolidation Principles

Consolidation Entity

The consolidated financial statements include, in addition to the parent company *aap* Implantate AG, all subsidiaries in which *aap* Implantate AG directly or indirectly holds a controlling interest via a majority of the voting rights.

Consolidated subsidiaries:

	2018	2017
	Shareholding	Shareholding
MAGIC Implants GmbH, Berlin	100%	100%
aap Implants Inc., Dover, Delaware, USA	100%	100%

Accounting and Valuation Methods

The financial statements of the companies included in the consolidated financial statements were drawn up applying uniform accounting and valuation methods as used by the parent company. At all subsidiaries, the financial year corresponds to the calendar year.

All intra-Group business transactions, balances and interim results are eliminated in full during consolidation insofar as they are not of minor importance. Possible balancing differences are stated with effect on results.

Significant Accounting Methods

Business Segments

At *aap*, there are no business segments identified for which regular reporting to the Management Board would be performed. Instead, the goal of the corporate strategy that has been pursued since 2009 is to boost the company's enterprise value through the development and sale of IP-protected products. The monthly reporting system facilitating the management of the company consists exclusively of the consolidated sales, progress with significant development projects, liquidity and the

working capital of the entire Group. The company is managed solely on the basis of this data. *aap* is therefore managed both internally and externally as a company without separate segments.

Currency conversion differences

The functional and reporting currency of the Group is EUR. The financial statements of the foreign subsidiary included in the consolidated financial statements are not prepared in EUR, but in the national currency. On the reporting date, the financial statements are converted from the national currency into the Group currency EUR on the basis of the functional currency concept. The financial statements are converted using the modified closing rate method, according to which items on the balance sheet, with the exception of equity, are converted based on the price on the reporting date and items on the income statement are converted based on the average price over the reporting period. Equity is converted with historical prices. Conversion differences resulting from foreign currency conversion are included in equity without affecting profit or loss.

In the individual financial statements, business transactions are valued in foreign currencies using the average exchange rate in force at the time of the initial booking. Financial assets and liabilities in foreign currencies are valued at the reporting date, thereby affecting the result. The resulting conversion differences are generally taken into account in other operating income and expenses. Unrealized currency differences that arose from the intra-Group financing of the US subsidiary were reported in the financial result.

Revenue Recognition

The Group's sales revenues from contracts with customers mainly include sales of products. Sales revenues are recognized when the power of disposal over the goods is transferred to the customer. In the case of deliveries, this will generally be once the ownership risks and opportunities have been transferred to the purchaser. With "bill and hold" contracts, the customer requests that delivery of the goods be delayed. The products are then warehoused separately, held ready for shipping and labeled separately until the planned delivery. Their sale to other customers is not permitted.

Sales revenues are recorded in the amount of consideration that the Group is expected to receive in exchange for these products. Customer discounts and returns are taken into account in accordance with the reporting period and the underlying sales.

Taxes

Income tax expenses in the reporting period consist of current and deferred taxes. Taxes are recognized in the statement of comprehensive income unless they relate to items that were recognized directly in equity or in other comprehensive income. In this case, the taxes are also recognized in equity or other comprehensive income.

Current tax expense is calculated on the basis of the tax regulations of the countries in which the subsidiaries do business and earn taxable income that is due on the balance sheet date or shortly thereafter. The management inspects tax returns regularly, especially with regard to issues that are open to interpretation and creates provisions based on the amounts that are expected to be due to the tax authorities.

Deferred taxes are stated for all temporary differences between the tax base of assets / liabilities and their book values in the IFRS financial statements (known as the liabilities method). However, if, in connection with a transaction that is not a corporate merger, a deferred tax arises from the initial

recognition of an asset or a liability that at the time of the transaction has an effect on neither the balance sheet nor the tax profit or loss, there is no tax deferral either at the time of initial recognition or thereafter.

Deferred taxes are assessed on the basis of the tax rates (and tax regulations) that are either in force on the reporting date or have largely been legally approved and are expected to apply when the deferred tax demand or tax liability is due.

Deferred tax assets arising from deductible temporary differences, tax credits and loss carryforwards are capitalized insofar as there is a sufficient likelihood that use can be made of the economic benefits involved. Deferred tax assets in the form of tax reduction entitlements arising from the expected use of existing loss carryforwards are only taken into consideration, as in the previous year, in view of the history of losses in the recent past insofar as they were already covered, as of the reporting date, by deferred tax liabilities arising from temporary differences even if the tax carryforwards seem more likely to be used.

The book value of deferred tax entitlements is reviewed on every reporting date and is reduced by the extent to which a sufficient amount in taxable income is no longer likely to be available, against which the deferred tax entitlement can at least be offset in part. Unrecognized deferred tax entitlements are reviewed on every reporting date and stated at the amount to which it has become likely that a future taxable result will enable the deferred tax asset to be realized.

Deferred tax liabilities arising from temporary differences in connection with shareholdings in subsidiaries are stated unless the Group can determine the time when the temporary differences will be reversed and it is likely that, in view of this influence, the temporary differences will not be reversed in the foreseeable future.

Deferred tax receivables and liabilities are netted out against each other if a legal entitlement to netting out is enforceable and the deferred tax receivables and liabilities relate to income taxes raised by the same tax authority, from the same tax entity or from different tax entities that intended to net out the differences.

Governmental grants and assistance

Public sector grants are only stated if there is a reasonable certainty that the conditions associated with them will be fulfilled and the grants will actually be received.

Investment allowances and investment grants received are carried as liabilities under the heading special investment allowances items. They are written down, with the resulting effect on earnings, in a straight line in accordance with the weighted useful economic life of the assets they helped to acquire.

Other public sector grants are stated as income in the period that is required to allocate them to the expenses they are intended to offset. Grants received to offset expenses already incurred are stated with an effect on the operating result for the period in which their entitlement originated.

Fair Value

Fair value is the market price that the company receives in connection with a normal transaction on the valuation date upon sale of the asset or which must be paid for the transfer of a liability. Here, the relevant market is assumed to be either the market with the largest sales volume or the most advantageous market for the company.

In determining the fair value of an asset or liability, the *aap* Group takes into account certain characteristics of the asset or the liability (for example, the condition and location of the asset or restrictions on sale or use), if market participants would similarly take into account these characteristics in setting the price for the acquisition of the respective asset or the transfer of the liability as of the valuation date. In these consolidated financial statements, fair value is determined on this basis. Exceptions include:

- Leases to which IAS 17 (from January 1, 2019 IFRS 16) Leases applies, and
- Valuation standards that are similar to, but not the same as, fair value, e.g. net realizable value in IAS 2 Inventories or useful value in IAS 36 Impairment of Assets.

Fair value is not always available as the market price. Frequently it must be determined on the basis of various valuation parameters. Depending on the availability of observable parameters and the significance of these parameters for determining the overall fair value, fair value is classified as level 1, 2, or 3. The classification is made according to the following standard:

- Level 1 – Quoted (unadjusted) prices on active markets for identical assets or liabilities.
- Level 2 – Valuation techniques in which fair value is determined by means of input parameters that are directly or indirectly observable and which are not quoted prices as in Level 1.
- Level 3 – Recognized valuation techniques if no determination of fair value is possible according to Level 1 or 2 insofar as they ensure an appropriate approximation of the market value.

Intangible assets

Intangible assets are stated at amortized cost of acquisition or manufacture. All intangible assets have a limited useful life and are depreciated using the straight-line method. Industrial property rights and similar rights and assets disclosed under other intangible assets are depreciated over a useful life of between two and 20 years.

Development costs for a new product or process are capitalized as intangible assets if the Group can meet the following requirements:

- Technical feasibility through economic realization or internal use
- Intention to complete and the capacity for future use
- Presentation and documentation of future economic use
- Availability of resources for completion
- Guarantee of the determination of the attributable costs

In previous years, capitalized development costs also include borrowing costs. Capitalized development costs are depreciated according to schedule using the straight-line method over their useful life, between seven and 15 years from the date on which they were first put to use. Research costs are recorded as expenses in the period in which they are incurred.

Irrespective of specific indications, capitalized development costs not yet in use undergo annual impairment tests. Assets are written up if and when there is no longer a reason for any previously undertaken extraordinary depreciation, whereby the increased book value from the write-up may not exceed the amortized cost of acquisition or manufacture. Write-downs and write-ups are recorded

with an effect on results in principle unless they are the result of a revaluation. Write-downs and write-ups of this kind are stated directly under equity in the revaluation reserve.

Intangible assets are subject to extraordinary depreciation if the amount recoverable from the assets is less than their book value.

Intangible assets are written off at the time of their disposal or if no further economic use is expected.

Property, plant and equipment

Tangible assets are valued at cost of acquisition or manufacture and, where depreciable, taking linear depreciation into account. The manufacturing costs of tangible assets are the full costs. Costs of borrowing are capitalized as part of acquisition or manufacturing costs insofar as they relate to the purchase, construction or manufacture of a qualified asset. Tangible assets that are financed by way of financial leases are capitalized at the lesser of either their fair value or the cash value of the leasing installments and depreciated using the straight line method over their likely useful life.

Useful lives are:	Years
Land and buildings	50
Technical plant and machinery	4 - 15
Other plant, office and factory equipment	3 - 13

Tangible assets are written off either upon disposal or if no further benefit is expected from the further use or the sale of the asset. The profit or loss resulting from writing off an asset is established as the difference between the net proceeds of the sale and the residual book value and is stated with effect on results.

Tangible assets are subject to extraordinary depreciation if the amount recoverable from the assets is less than their book values.

Residual values, useful lives and methods of depreciation used for non-current assets are reviewed at the end of the financial year and adjusted if necessary.

Financial Instruments

Financial instruments are all contracts leading at one and the same time to a financial asset at one company and to a financial liability or an equity instrument at another company.

The Group's financial instruments mainly comprise cash and cash equivalents, trade receivables, other financial assets, shareholdings and trade payables, liabilities to banks and other financial liabilities.

Reporting is carried out under F. Financial instruments.

Financial assets within the meaning of IFRS 9 are either classed as

- "at amortized cost" ("AC"),
- "at fair value through profit or loss" ("FVtPL"), or
- "at fair value through other comprehensive income" ("FVTOCI").

As part of the transition from IAS 39 to IFRS 9, the categories

- "to be held to maturity",
- "loans and receivables", and
- "available for sale"

have been deleted.

For the transition from IAS 39 to IFRS 9, please refer to the point “New and revised standards and interpretations”.

The classification occurs at the time of initial recognition, and is based both on the business model pursued by *aap* for managing its financial assets and hedging its cash flows, and on the properties of the contractual cash flows of the respective financial assets (cash flow condition). Initial valuation for all categories is at fair value. For financial assets which are valued at fair value with effect on results, transaction costs directly attributable to their acquisition are recognized immediately with effect on results. For all other financial assets, the directly attributable transaction costs reduce the fair value of those financial assets. The subsequent measurement is made according to the valuation categories of the respective category.

Financial assets valued at amortized cost
include non-derivative financial assets, which are held as part of a business model, the purpose of which is to receive contractual cash flows. Simultaneously, the terms and conditions of the financial assets relate to cash flows at specific times. These constitute payments of amortization and interest on the outstanding capital sum.

These assets are subsequently valued at amortized cost, using the effective interest method. The amortized costs are reduced by write-downs. Interest income, foreign currency gains and losses as well as write-downs and profits or losses from derecognition are recorded with effect on results.

Financial assets valued at associated fair value not affecting profit and loss
include debt instruments, which are held as part of a business model which has the purpose of realizing cash flows from the instrument, both through receipt of contractual payments, and by selling. Simultaneously, the terms and conditions of the financial assets relate to cash flows at specific times. These constitute payments of amortization and interest on the outstanding capital sum.

These assets are subsequently valued at the associated fair value. Interest income calculated using the effective interest method, foreign exchange rate gains and losses, and losses from write-downs are recorded in the profit and loss accounts. Other net profit or losses are recorded as other comprehensive income. On derecognition, the cumulative other comprehensive income is reclassified in the profit and loss accounts.

Financial assets valued at associated fair value affecting profit and loss
are all financial assets which are neither valued at amortized cost nor at the associated fair value not affecting profit and loss.

These assets are subsequently valued at the associated fair value with effect on results. Net profit and losses, including any interest or dividend income, are recorded in the profit and loss accounts.

A financial asset is written off at the time of expiry or transfer of the rights to payments from the asset, and therefore at the time when essentially all opportunities and risks associated with the property have been transferred.

In *aap’s* consolidated financial statements as at December 31, 2018, with the exception of the investment, financial assets are solely reported as “at amortized cost” (“AC”).

The investment in financial assets, which in the previous year were classified as “available for sale” in accordance with IAS 39, is now recognized as a financial asset at fair value without effect on results in accordance with IFRS 9 (FVTOCI). For this investment, there is no price quoted on an active market, which means the fair value cannot be reliably calculated. It is therefore valued at amortized cost or at the lesser value of estimated future cashflows, which is assumed to be largely equivalent to fair value.

No changes apply to the assignment of financial debt instruments to the valuation category IFRS 9.

Financial debt instruments are classified upon initial recognition. Initial valuation is always at fair value. The fair value of money owed to banks and other financial debts, liabilities arising from financial leasing and other financial liabilities is valued by discounting the anticipated future payment streams at the going market rates of interest for similar financial liabilities with comparable terms to maturity.
Financial debt instruments are generally recorded at “amortized cost”, taking into account the effective interest method. The subsequent valuation of the category “Other financial liabilities” is at amortized cost using the effective interest model.

Financial liabilities are written off if the underlying obligation has been fulfilled or waived or has expired.

In these consolidated financial statements, solely “other financial liabilities” are disclosed.

The *aap* Group holds only primary financial instruments.

Holdings of primary financial instruments are shown on the balance sheet. The level of financial assets corresponds to the maximum risk of default.

The impairment model of IFRS 9 takes into account expected credit losses (“expected losses”). The Group applies the model for financial assets that are classified at amortized cost.

In this regard, the Group applies the simplified approach to assess default risks and calculates the expected credit losses via a risk provision in the amount of credit losses expected over the residual term, regardless of when the default event occurs. Credit losses expected over the term are credit losses resulting from all possible default events during the expected term of the financial instrument.

At each reporting date, the Group determines whether there are objective indications that there is an impairment of a financial asset or a group of financial assets.

Objective evidence that a financial asset is impaired is, among other things:

- Payment default of a debtor or evidence that a debtor is filing insolvency, or
- Significant negative changes in the debtor’s payment behavior

Financial assets are impaired if urgency is regarded as being very unlikely. The requirement for value adjustment is recognized in other operating expenses.

Inventories

Inventories are stated at the lower of cost of acquisition or production or net sale value. The costs of production are the production-related full costs as established on the basis of normal employment. In detail, the costs of production include, along with directly attributable costs, an appropriate proportion of the production overheads. These include material and production overheads, production-related

administrative costs and straight-line depreciation of production facilities. Borrowing costs are not capitalized as part of the costs of acquisition or production. Valuation is based on the FIFO assumed sequence of consumption. Inventory risks that arise from reduced usability are taken into account by means of appropriate valuation discounts. Lower values on the reporting date due to lower net losses on disposal are recognized. The net selling price is the estimated achievable selling price in the normal course of business less estimated costs up to and until completion and less sales costs. If the net selling price of inventories that were written down in previous periods has risen again, the impairment loss is reversed and stated as an inventory change.

Borrowing Costs

Costs of borrowing associated with qualified assets (in particular active development costs), are thoroughly capitalized. All other borrowing costs are recorded as expenses in the period in which they were incurred.

Cash and cash equivalents

Cash and cash equivalents include balance sheet items bank balances and cash in bank without term deposits with an agreed maturity between 3 and 12 months.

Share-based Payment

The Group-internal stock option program is shown as share-based payments by means of compensation with equity capital instruments. Stock options granted to employees and executives are stated as personnel expenses on the one hand and at fair value as a contribution toward capital reserves on the other. The transfer to capital reserves takes place over a period that corresponds to the contractually agreed two- to five-year blocking period. The fair value of stock options granted is calculated on their grant date by means of an option price model. See E. 11 Share-based payments for details.

Provisions

Provisions are created for existing legal or factual liabilities to third parties arising from a past event, if a claim is likely and if the foreseeable level of provision required can be estimated reliably. Provisions are stated at the settlement amount that is likeliest to be determined and are not netted out against claims to reimbursement. The original estimate of costs is reviewed annually. If the discounting effect is significant, provisions are created with an interest rate before taxes that reflects the specific risks that the debt involves. In the case of discounting, the increase in the amount of the provision over time is recorded as a financial expense.

Other Assets and Liabilities

Other assets and liabilities do not have a contractual basis between companies, or they are not settled through cash assets or financial assets / liabilities. They are shown on the balance sheet at cost of acquisition, if necessary less essential value adjustments, in line with the actual risk of default.

Leasing Transactions

Leasing transactions are classified as either finance leases or operating leases in accordance with IAS 17. They are treated as finance leases if the Group as the lessee bears all the opportunities and risks arising from the use of the leasing item, which therefore counts as its economic property. In this case, the leasing item and the corresponding liability are stated on the balance sheet. The leasing item is stated at its fair value or the lesser cash value of the leasing rate. Leasing payments are divided into

financing costs and a repayment portion of the residual debt so that there is a constant interest rate for the term of the leasing agreement. The financing costs are stated in the financial result with effect on expenses. In the case of an “operating lease”, the leasing item is not capitalized and the lease payments are stated with effect on expenses at the time at which they occurred.

With the transition from IAS 17 to IFRS 16, the separation between Finance and Operate Lease is terminated with the initial application on January 1, 2019. All of these contracts are included in the balance sheet and also constitute expenses in the form of depreciation (liability is discounted) and interest. Further information on this can be found in the section “Effect of IFRS 16”.

Contingent Assets, Contingent Liabilities

Contingent assets and liabilities are possible or existing receivables or liabilities based on past events and where an inflow of funds is likely respectively and outflow of funds is unlikely. They are not recorded on the balance sheet. The amounts stated as contingent liabilities correspond to the extent of liability on the reporting date.

Contingent assets which need to be indicated do not exist as of the date of the financial statements.

New and amended standards and interpretations

The following overview covers new and revised standards which could be relevant for the Group and must be applied in the financial year in EU-IFRS financial statements (EU endorsement).

Amended IAS / IFRS standard	*Brief explanation*
IFRS 9 Financial Instruments	New concept for accounting of financial instruments as well as replacement of IAS 39
IFRS 15 Revenue recognition	including clarification – Revenue recording standard; replacement of Standards IAS 18 and IAS 11
IFRS 2 Share-based Payment	Clarification of the classification and valuation of business transactions with share-based payments
IFRIC 22 Foreign currency transactions	Clarification of currency conversions in advance payments
AIP 2014-2016 Annual improvements to IFRS	Improvements to IFRS 1 and IAS 28

With the exception of the information on the effects of the application of IFRS 9 and IFRS 15 described below, there are no significant impacts on the Group's assets, financial position, and income position from the amendments to the aforementioned standards.

First-time application of IFRS 9:

With effect from January 1, 2018, the previous accounting standard IAS 39 was superseded by IFRS 9 and replaces the previous provisions on financial instruments. The new standard includes rules for the classification and valuation of financial assets and financial debt instruments. IFRS 9 includes, in particular, new regulations for classifying and valuing financial assets, fundamental changes in accounting for the impairment of certain financial assets and revised regulations for hedge accounting. IFRS 9 provides for a uniform approach to classifying and valuing financial assets and liabilities, which is generally based on the business model of the Group and the cash flows of the financial instrument. In contrast to IAS 39, IFRS 9 uses three – instead of four – valuation categories to classify financial assets. While IAS 39 only takes into account value adjustments for write-downs which have already occurred but are not yet recognized ("incurred loss model"), IFRS 9 determines expected credit losses for the amount of the value adjustment ("expected loss model").

In accordance with the transitional provisions, IFRS 9 has been introduced retrospectively without any changes to the comparative periods. As the new impairment regulations would only have led to a slight increase in the impairment requirement, no adjustment without effect on results was made from the initial application to January 1, 2018 in the revenue reserves. Comparison items are presented on the basis of the previous regulations.

In the table below, the original valuation categories and book values of financial assets pursuant to IAS 39 have been converted to the new valuation categories and book values of these financial assets pursuant to IFRS 9.

2018	Original valuation category according to IAS 39	New valuation category according to IFRS 9	Book values IAS 39 31.12.2017	Book values IFRS 9 December 31, 2018
			KEUR	KEUR
Assets				
Financial assets	AfS	FVtOCI	192	183
Accounts receivable (trade debtors)	LaR	AC	2,543	2,663
Other financial assets	LaR	AC	4,066	3,410
Cash and cash equivalents	LaR	AC	13,279	4,260

The first-time application of IFRS 9 had no effect on the classification and valuation of financial liabilities.

First-time application of IFRS 15:

From January 1, 2018, the *aap* Group has applied the new standard for revenue recognition, IFRS 15 "Revenues from contracts with customers", for the first time in accordance with the modified retroactive approach. The comparative period is therefore presented in accordance with the applicable accounting principles.

IFRS 15 fully supersedes the previous regulations for recording revenues in accordance with IAS 18 "Revenue" and IAS 11 "Construction Contracts", including the corresponding interpretations. Sales revenues are now to be realized if the customer can obtain the power of disposition over the agreed goods and services and draw on the benefits from them. Sales revenues must be offset against the amount of consideration that the Company is expected to receive. The new standard provides for a five-step procedure whereby the amount of revenues and the time or period of implementation must be determined. The model is as follows: Identification of the contract with the customer, identification of the individual performance obligations, determination of the transaction price, allocation of the transaction price to the individual performance obligations, and realization of revenues upon fulfilment of the individual performance obligations.

IFRS 15 does not have a significant impact on revenue recognition of the *aap* Group, as the majority of the revenues in the consolidated financial statements are realized on the basis of routine transactions (revenue realization at the time of transfer of the power of disposal). There are no financing components or agreements in the Group that regulate multiple services within a contract or within several contracts (multi-component contracts). These contracts / agreements have no binding obligation to purchase, and have been drawn up on the basis of requests / orders. Furthermore, it has been established that additional services are provided but these do not provide for separate performance obligations as defined by IFRS 15, as this relates to the provision of regulatory

requirements and compliance with Section 31 of the Medical Devices Act. So-called discounts are agreed with customers, provided that they meet sales targets. These are checked at the end of the financial year and deferred accordingly. As the amount of these discounts is less than 1% of the total revenues and therefore of minor importance, a separate presentation is waived.
The Group has concluded that it is acting as the client or principal in all its sales transactions, as it has the power of disposal for all sales transactions, sets the prices, and bears the risk of default.

Until December 31, 2017, sales revenues were recognized on the basis of IAS 18. Sales revenues were realized if the amount of sales revenues could be reliably determined, if it was probable that the future benefit would go to the Company regardless of whether the actual payment had been made and if inventory risks and opportunities had been transferred to the customer.

Accordingly, the implementation of the two new standards did not result in any adjustments to the revenue reserves.

Published standards which are not yet mandatory

The following overview covers new and revised standards which could be relevant for the Group and are to be applied only in the financial years beginning after 1/1/2019. *aap* does not yet apply them and shall not apply them early.

Standards/interpretation		Application obligation	Takeover by the EU Commission
IFRS 9 Financial Instruments	Clarifications on prepayment arrangements with negative compensation.	January 1, 2019	Mar 22, 2018
IFRS 16 Leasing	Uniform accounting model for recording leases – IFRS 16 replaces the guidelines for leases, including IAS 17 "Leases", IFRIC 4 "Determining whether an agreement includes leasing arrangements", SIC-15 "Operating leasing arrangements – incentives", and SIC-27 "Assessment of the economic content of transactions in the legal form of leases".	January 1, 2019	October 31, 2017
IFRIC 23 Uncertainties regarding income tax handling	Application instructions for recording current and deferred tax liabilities and assets according to IAS 12.	January 1, 2019	October 23, 2018
AIP 2015-2017 Annual improvements	Various standards (IFRS 3, IFRS 11, IAS 12, IAS23)	January 1, 2019	Mar 14, 2019
Amendments to references to the conceptual framework in IFRS Standards	Amendments to references to the conceptual framework in IFRS Standards	January 1, 2020	Open
IFRS 3 Business mergers	Specification of the business definition. The amendment contains guidelines with which to facilitate the distinction between the acquisition of a business operation and the acquisition of an asset or group of assets. Only the acquisition of a business operation falls within the scope of IFRS 3.	01.01.2020	Open
IAS 1 and IAS 8 Definition of significant	Changes to the definition of "significant", to refine it and to standardize the different definitions in the framework and in the actual standards	01.01.2020	Open

The Group intends to apply these standards and interpretations from the time of their entry into force.

With the exception of the effects of applying IFRS 16 described below, *aap* is currently reviewing how the initial application of the standards will affect the Group's assets, financial position, and income position.

Effect of IFRS 16:

The lessor's balance sheet under IAS 17 was almost identical in IFRS 16. IFRS 16 must be used during financial years starting on or after January 1, 2019; early application is permitted if IFRS 15 is already

in use. *aap* will apply IFRS 16 for the first time in the financial year starting on January 1, 2019. Pursuant to the transitional provisions, the adjustment of the previous year's figures is waived.

In the transition to the new standard, *aap* will apply the following leniency rules granted by IFRS 16 to the lessee:

- For leasing contracts previously classified as operating leases pursuant to IAS 17, the lease liability is recognized at the current value of the outstanding lease payments, discounted at the marginal borrowing rate as at January 1, 2019. The corresponding right of use is recorded in the amount of the leasing liability.
- Lease agreements which expire no later than December 31, 2019 are recognized as short-term lease agreements, independently of the original contract term;
- The initial direct costs are disregarded when assessing usage rights at the time of the first-time application; and
- When determining the term of contracts with extension or termination options, current knowledge is taken into account.

The Group-wide implementation preparation for the initial application of IFRS 16 revealed that with the switch on January 1, 2019, usage rights and lease liabilities of approximately KEUR 1,461 were recorded on the consolidated balance sheet for the first time.

These differ prospectively in terms of:
- Lease payments for buildings and office space in the amount of KEUR 1,201 for 2019-2021
- Vehicle leasing in the amount of KEUR 143 for 2019-2022
- Other contracts for IT equipment in the amount of KEUR 117 for 2019-2022

Regarding the EBIT Group, a non-significant burden is expected in 2019.

C. Material Discretionary Decisions, Estimates and Assumptions

The discretionary decisions, estimates and assumptions made by the management affect the assessment of the going concern assumption, the amount of reported income, expenses, assets and (contingent) liabilities. In later periods, related uncertainties can lead to adjustments with a significant impact on the assets, financial and earnings position.

The estimates and assumptions made by the management and used in preparing the consolidated financial statements, for which there is a considerable risk that they will require a material adjustment to the book values of assets and liabilities within the next financial year, are outlined in the following.

First-time capitalization of development costs is based on the management's estimate that technical and economic feasibility is a proven fact. In determining the amounts to be capitalized and for the annual impairment test, assumptions must be made about the future cash flow to be expected from the project, the discount rates to be applied and the period when future benefits are to be expected from it. As of December 31, 2018, the book value of capitalized development costs was KEUR 13,069 (previous year: KEUR 11,740). Project progress made in the reporting year along with customer response to date has confirmed the estimates of future earnings. However, uncertainties as to future market shares and profit margins remain – partly against the background of increasingly exacting approval requirements – and could lead to a need for adjustment over the next financial years. For further details, see the risk and opportunity report in the combined management report for the annual financial statements and the consolidated financial statements. Neither in the financial year 2018 nor in the previous year write-downs of development costs were necessary.

Capitalized development costs are subjected to annual impairment tests. To calculate the value in use, future cash flows of the cash flow generating unit (CGU) and suitable discount factors for cash value determination must be established. This is bound to involve estimates and assumptions. They mainly include market developments, including changes in legislative framework conditions, future medical developments, growth rates, selling prices, weighted average capital costs and tax rates. Cash flow forecasts taking past experience into account are based on management assessments of future developments. These premises and the underlying methodology can exercise considerable influence on the values and amounts of possible impairments.

The impairment model of IFRS 9 takes into account expected credit losses. The model requires estimates from the Management Board in relation to the question of how changes in economic factors affect expected credit losses. To this end, assumptions are made on the basis of reliably weighted information. Value adjustments were reported on the reporting date in the amount of KEUR 792 (previous year: KEUR 595).

The quantification of provisions is subject to uncertainty as to future increases in costs and the probability of the occurrence of the events for which the provisions were established. The book value of the provisions as of December 31, 2018 was KEUR 276 (previous year: KEUR 749).

Personnel expenses from granting share-based compensations are valued at the time of granting at fair value. For parameters entering into the valuation process such as option term, volatility, fluctuation, or exercise value, assumptions are made that are presented in detail under F.12 Share-based Compensations.

In stating income taxes in the balance sheet, uncertainties exist on the interpretation of complex fiscal regulations, amendments to tax law and the opinions held by the tax authorities. Furthermore, the fiscal regulations can also be subject to different interpretations by taxpayers and the tax authorities that require judicial clarification at the highest level. It is therefore possible that differences between

the actual results and the assumptions made or future changes to these assumptions may require adjustments to stated tax income and tax expenses.

Deferred tax assets are stated if the realization of future tax benefits appears to be sufficiently assured. In the process and inter alia, the planned results of operative business and the effects on results of the reversal of taxable temporary differences are taken into account under consideration of the minimum taxation in Germany. The actual tax result in future reporting periods and with it the actual realizability of deferred tax assets may, however, differ significantly from the assessments at the time when the deferred taxes were capitalized.

All such assumptions and estimates are based on circumstances and assessments as of the balance sheet date and on future business development anticipated for the *aap* Group, taking into account realistic expectations of the future development of its economic environment. If these framework conditions develop differently, the assumptions and, if necessary, book values of the assets and debts affected will be adjusted accordingly.

According to the information available at the time of the preparation of the consolidated financial statements, no significant changes in the underlying assumptions and estimates are likely to occur; nor is an adjustment of the book values of the reported assets and liabilities likely to prove necessary in the 2019 financial year.

D. Explanatory notes to the Group statement of comprehensive income

1. Sales revenues

Sales revenues result exclusively from the sale of products.

Sales by region	2018 KEUR	2017 KEUR
Germany	2,774	2,428
North America	2,240	3,071
International	5,802	5,149
Other	-35	254
	10,781	**10,902**

Sales by product group	2018 KEUR	2017 KEUR
Trauma	10,816	10,648
Other	-35	254
	10,781	**10,902**

In the previous year, the other sales revenues included sales revenues with *aap* Joints GmbH and the *aap* Biomaterials GmbH.

During the 2018 financial year, sales revenues from the sale of products in the amount of KEUR 2,881 (previous year: KEUR 2,112) were distributed across the Company's three main customers.

2. Capitalized own and development costs

The capitalized own and development costs amounting to KEUR 1,891 (previous year: KEUR 1,307) are primarily capitalizations in connection with development projects.

3. Other operating income

	2018 KEUR	2017 KEUR
Income from the release of provisions and the derecognition of liabilities	159	21
Income from non-cash benefit (vehicle use)	101	91
Income from investment grants	93	94
Income from leasing activities	33	33
Grants	22	56
Recharging of costs	19	63
Out-of-period income	13	90
Currency conversion differences	8	5
Income from services	5	210
Income from the reduction of value adjustments	0	8
Other	12	85
Total	**465**	**756**

4. Cost of materials

	2018 KEUR	2017 KEUR
Raw materials, consumables, supplies and purchased goods	2,083	1,741
Costs of purchased services	257	131
Total	**2,340**	**1,872**

5. Personnel expenses

	2018 KEUR	2017 KEUR
Wages and salaries	6,467	6,211
Social security contributions	667	615
Contribution-oriented pension provisions	509	470
Stock options granted to employees	134	90
Total	**7,777**	**7,368**

The *aap* Group provides contribution-oriented pension provision expenditures due to legal obligations to state-administered pension funds and contribution payments to provident funds. Over and above these payments the Group has no further commitments.

Average annual employee numbers	2018	2017
Production	65	58
Research & development	20	13
Quality management	9	13
Sales	24	27
Administration	11	11
Total	**130**	**122**

Average annual employee numbers	2018	2017
Industrial employees (incl. technical employees)	67	65
Employees	63	57
Total	**130**	**122**

6. Depreciation

Planned depreciations on tangible fixed assets amount to KEUR 1,105 (previous year: KEUR 1,153) and depreciations on intangible assets amount to KEUR 621 (previous year: KEUR 630).

7. Other operating expenses

	2018 KEUR	2017 KEUR
Consulting expenses	2,971	2,783
Outbound freight, packaging material, delivery costs	1,161	1,438
Premises costs	959	961
Advertising and travel expenses	750	826
Personnel leasing	564	146
Repairs and maintenance	547	485
Research, analysis, experiments and sterilization	502	533
Insurance companies, premiums, levies	353	311
Patent and other fees	304	268
Value adjustment on receivables	208	104
Personnel services	177	266
Vehicle costs	175	172
Office supplies, phone, fax, postage	166	192
Supervisory Board	95	90
Out-of-period expenses	24	76
Severance agreements	0	200
Certification costs	0	50
Other	448	473
Total	**9,404**	**9,373**

For a more transparent representation of consulting expenses, the following costs are included in the item:

- Consulting expenses (incl. consultant for R&D)	2,180	1,687
- Legal consulting expenses	448	712
- Acquisition fees for auditors and tax consultants	248	294
- Stock exchange costs	77	79
- Payroll accounting costs	19	11
Total	**2,971**	**2,783**

8. Financial result

	2018 KEUR	**2017 KEUR**
Unrealized income/expenses from Intercompany loans at the reporting date	514	-1,261
Unrealized foreign exchange rate result	**514**	**-1,261**

Other interest and similar income	0	3
Other interest and similar expenses:		
- Interest on loans	-30	-48
Interest result	**-30**	**-45**
Financial result	**484**	**-1,307**

9. Exchange Rate Differences

Exchange rate differences offset with effect on results in the accounting period were as follows:

	2018 KEUR	**2017 KEUR**
Income exchange rate differences in other operating income	8	5
Expenses exchange rate differences in other operating expenses	-15	-31
Unrealized income/expenses from Intercompany loans at the reporting date	514	-1,261
Total	**507**	**-1,287**

10. Income taxes

The income statement includes the following income taxes:

Income tax expense by origin	2018 KEUR	2017 KEUR
Paid or owed taxes on income		
- Germany	0	0
- Other countries	-11	0
	-11	0
Deferred taxes		
- from time differences	-296	-3
- From tax loss carryforwards, affecting net income	289	33
	-7	30
Total	**-18**	**30**

For calculating the latent taxes in Germany, a tax rate of 30.2% (previous year: 30.2%) was applied, which results from corporation tax of 15%, the solidarity surcharge of 5.5% on the corporation tax liability and the trade tax rate of 14.4%.

The income tax expenses recorded in the consolidated statement of comprehensive income can be carried over to the theoretical tax expenses as follows.

	2018 KEUR	2017 KEUR
Earnings before taxes	-7,648	-9,301
Theoretical tax expenses (earnings) 30.2% (previous year: 30.2%)	2,310	2,809
Tax effects on		
Non-utilizable losses carried forward or utilization of off-balance sheet losses carried forward and depreciation of losses carried forward	-2,308	-2,763
Permanent differences	0	0
Non-tax-deductible expenses and added amounts trade tax	-28	-23
Tax-exempt income	8	7
Total of the tax effects	-2,328	-2,779
Income tax recorded in the income statement	-18	30
Effective tax rate in %	0.00	0.00

The tax rate applied for the above reconciliation corresponds to the tax rate to be paid by the company on taxable gains in Germany in accordance with the German tax law.

11. Earnings per share as per IAS 33

Undiluted earnings per share are calculated by dividing after tax earnings by the shares for the period by the average weighted number of shares. The share-based remuneration programs have a dilutive effect.

		Jan - Dec. 2018	Jan - Dec. 2017
Number of shares undiluted (in thousands)		28,707	28,644
Earnings	KEUR	-7,666	-8,941
Undiluted earnings per share	EUR	-0.27	-0.31
Diluted number of shares (in thousands)		28,813	28,758
Earnings	KEUR	-7,666	-8,941
Diluted earnings per share	EUR	-0.27	-0.31

E. Explanatory notes to the consolidated balance sheet

1. Intangible assets

2018

	Capitalized Services	Concessions, industrial property rights, licenses and similar rights	Prepayments made	Total
	KEUR	KEUR	KEUR	KEUR
Acquisition and production costs				
As of 01/01/2018	15,967	1,693	0	17,660
Additions	1,891	168	0	2,059
Disposals	0	0	0	0
As of 12/31/2018	**17,858**	**1,862**	**0**	**19,718**
Accumulated depreciation				
As of 1/1/2018	-4,226	-1,586	0	-5,812
Depreciation	-563	-58	0	-621
Disposals	0	0	0	0
As of 12/31/2018	**-4,790**	**-1,644**	**0**	**-6,433**
Book values				
As of 12/31/2018	**13,069**	**217**	**0**	**13,286**

2017

	Capitalized Services	Concessions, industrial property rights, licenses and similar rights	Prepayments made	Total
Acquisition and production costs	**KEUR**	**KEUR**	**KEUR**	**KEUR**
As of 01/01/2017	14,660	1,661	25	16,346
Additions	1,307	50	0	1,357
Disposals	0	-18	-25	-43
As of 12/31/2017	**15,967**	**1,693**	**0**	**17,660**
Accumulated depreciation				
As of 01/01/2017	-3,646	-1,554	0	-5,200
Depreciation	-580	-50	0	-630
Disposals	0	18	0	18
As at 31/12/2017	**-4,226**	**-1,586**	**0**	**-5,812**
Book values				
As at 31/12/2017	**11,741**	**107**	**0**	**11,848**

The long-term intangible assets are located exclusively in Germany. There are no restrictions on availability or usage.

Development costs

In the financial year, no capitalized borrowing costs are included in the additions. The additions for the development costs impact the following projects:

	Useful life in years	Book value 31.12.2018 KEUR	Book value 31.12.2017 KEUR	Addition 2018 KEUR
Development LOQTEQ® without polyaxial systems and foot/ankle	7	1,432	1,715	61
Development LOQTEQ® for foot/ankle	-*	823	799	24
Development of polyaxial systems	10	929	989	11
Development of nano silver-coated osteosynthesis products	-*	6,694	4,955	1,739
Development of resorbable metal implants based on magnesium alloys	-*	2,927	2,870	57
		12,805	**11,328**	**1,891**

- * development projects in development

In addition, further research and development costs have accrued from either external providers or through the use of own staffing capacities in the amount of KEUR 334 (previous year: KEUR 297) and recorded in expenses.

Moreover, the *aap* Group conducted an annual impairment test as of December 31, 2018 for development projects by determining their useful value. The useful value of a development project is the cash value of the cash flows that the project is likely to generate in the future. It is determined internally. The determination of useful value is based on cash flow plans until the end of their expected useful life of ten years. Anticipated sales are based on a planning horizon of four years approved by the Management Board. Gross profit margins are derived as far as possible from historical data for comparable products or based on the assumptions of the Management Board.

The discount rates used were derived from market data and from the project-specific risk run by the underlying development project and amount to between 10.8% and 13.3% p.a. (previous year: between 13.3% and 15.5%) and between 7.6% and 9.3% after taxes (previous year: between 7.3% and 9.0%).

2. Property, plant and equipment

2018

	Land, land rights and buildings, incl. buildings on third-party land	Technical equipment and machinery	Other investments, factory and office equipment	Prepayments made	Total
	KEUR	KEUR	KEUR	KEUR	KEUR
Acquisition and production costs					
As of 1/1/2018	864	12,716	2,266	216	16,062
Additions	0	500	266	22	787
Disposals	0	-407	-252	0	-660
Transfers	0	216	0	-216	0
As of 12/31/2018	**864**	**13,025**	**2,279**	**22**	**16,190**
Accumulated depreciation					
As of 1/1/2018	-460	-7,142	-1,263	0	-8,866
Depreciation	-9	-890	-207	0	-1,106
Disposals	0	407	251	0	658
Transfer	0	0	0	0	0
As of 12/31/2018	**-469**	**-7,625**	**-1,219**	**0**	**-9,314**
Book values					
As of 12/31/2018	**395**	**5,400**	**1,060**	**22**	**6,876**

2017

	Land, land rights and buildings, incl. buildings on third-party land	Technical equipment and machinery	Other investments, factory and office equipment	Prepayments made	Total
	KEUR	KEUR	KEUR	KEUR	KEUR
Acquisition and production costs					
As of 01/01/2017	864	12,644	2,197	0	15,706
Additions	0	351	177	216	744
Disposals	0	-279	-108	0	-388
Transfers	0	0	0	0	0
As at 31/12/2017	**864**	**12,716**	**2,266**	**216**	**16,062**
Accumulated depreciation					
As of 01/01/2017	-452	-6,457	-1,180	0	-8,089
Depreciation	-8	-965	-180	0	-1,153
Disposals	0	279	97	0	376
Transfer	0	0	0	0	0
As at 31/12/2017	-460	-7,142	-1,263	0	-8,866
Book values					
As at 31/12/2017	**404**	**5,574**	**1,002**	**216**	**7,196**

The book value of the property, plant and equipment leased as part of financing leasing as at December 31, 2018 amounts to KEUR 1,318 (previous year: KEUR 1,924). The leasing contracts are financings for production assets. The rates amount to KEUR 1 – KEUR 46 and are paid monthly or quarterly. The term ranges from 36 to 60 months.

The Group's liabilities from these financing leases amounting to KEUR 628 (previous year: KEUR 1,095) are secured through rights of the lessor to the leased assets.

In addition, property, plant and equipment were financed by loans taken out for that specific purpose. The book value of property, plant and equipment assigned as collateral for liabilities is KEUR 114 (previous year: KEUR 1,711).

The Group's liabilities from these loan liabilities amounting to KEUR 5 (previous year: KEUR 338) are secured by the lender's rights to the assets.

In the financial year, the tangible assets are located exclusively in Germany.

3. Financial assets

The investment reported as financial assets has developed as follows:

	31.12.2018		31.12.2017	
	Book value in KEUR	Share in %	Book value in KEUR	Share in %
AEQUOS Endoprothetik GmbH, Munich	183	4.57 %	192	4.57

The reduction compared to the previous year is based on the repayment of a capital reduction decided in the preceding years.

4. Deferred Tax Assets and Liabilities

2018

	Initial holdings	Recognized as affecting net income in the income statement	Registered as not affecting net income in equity capital	Closing level
	KEUR	KEUR	KEUR	KEUR
Capitalized Services	-3,224	-483	0	-3,707
Financial assets	32	-19	0	13
Inventories	1,332	189	0	1,521
Liabilities	0	17	0	17
Total	-1,860	-296	0	-2,157
Tax losses	1,938	289	0	2,227
Total*	**78**	**-7**	**0**	**68**

*When offsetting deferred tax assets and liabilities

2017

	Initial holdings	Recognized as affecting net income in the income statement	Registered as not affecting net income in equity capital	Closing level
	KEUR	KEUR	KEUR	KEUR
Capitalized Services	-2,981	-243	0	-3,224
Financial assets	-22	54	0	32
Inventories	1,262	70	0	1,332
Liabilities	-116	116	0	0
Total	-1,857	-3	0	-1,860
Tax losses	1,905	33	0	1,938
Total*	**48**	**30**	**0**	**78**

*When offsetting deferred tax assets and liabilities

The tax deferrals result from the following balance sheet items:

	31.12.2018		31.12.2017	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
	KEUR	KEUR	KEUR	KEUR
Capitalized Services	0	-3,707	0	-3,224
Financial assets	13	0	32	0
Inventories	1,557	-37	1,372	-40
Liabilities	17	0	0	0
Loss carryforwards	2,227	0	1,938	0
Total	3,814	-3,744	3,342	-3,264
Adjustments	-2,227	2,227	-1,938	1,938
Total	1,589	-1,517	**1,404**	**-1,326**

The total amount of the balanced deferred taxes is broken down as follows:

	31.12.2018		31.12.2017	
	Deferred tax assets KEUR	Deferred tax liabilities KEUR	Deferred tax assets KEUR	Deferred tax liabilities KEUR
From the use of existing loss carryforwards	2,227	0	1,938	0
From consolidation	1,557	-81	1,404	0
From temporary differences	30	-3,663	0	-3,264
Total	3,816	-3,744	3,342	-3,264
Adjustments	-2,227	2,227	-1,938	1,938
Total	**1,589**	**-1,517**	**1,404**	**-1,326**

The amount of the corporation tax or trade tax loss carryforwards for which no deferred tax assets were capitalized was around EUR 29.4 million or EUR 29.9 million as of the end of the reporting year (previous year: EUR 23.0 million or EUR 23.5 million). These tax loss carryforwards do not lapse and can, taking account of the rules relating to minimum taxation, be netted out indefinitely against future taxable results of the companies in which the losses were incurred.

Unused tax loss carryforwards of subsidiaries in other jurisdictions for which no deferred tax assets were capitalized was KEUR 4,503 (previous year: KEUR 3,289).

The tax loss carryforwards exist for Group companies with a history of losses. The Group companies do not have sufficient taxable temporary differences or tax planning opportunities which could lead to a comprehensive estimate of deferred tax claims.

The deferred tax assets occurring in the context of the consolidation were determined to be 30.2% on the basis of an average Group tax rate (previous year: 30.2%).

5. Inventories

	31.12.2018 KEUR	31.12.2017 KEUR
Raw materials, consumables and supplies	938	1,063
Work and services in progress	927	797
Finished products and trade goods	7,718	7,714
Prepayments made	34	43
Total	9,617	9,617

Value adjustments of inventories shown in the cost of materials developed as follows:

	2018 KEUR	2017 KEUR
Accumulated impairment losses on 01/01	**2,987**	**2,791**
Of which		
- Marketability discounts	2,687	2,483
- Estimate net selling value	300	308
Expense for marketability discounts	0	178
Expense for net selling price	0	0
Utilization through the disposal of inventories	-253	26
Reversal of asset impairment/Utilization of net realizable value	-201	-8
Accumulated value adjustments on 12/31	**2,534**	**2,987**
Of which		
- Marketability discounts	2,434	2,687
- Estimate net selling value	99	300

The book value of the inventories applied to the net selling price is KEUR 266 (previous year: KEUR 328). To secure liabilities, no inventories were transferred (previous year: KEUR 0).

6. Accounts receivable (trade debtors)

Trade receivables less write-downs totaled KEUR 2,663 as of the reporting date (previous year: KEUR 2,543). Thereof KEUR 2,663 were due within a year in the reporting year (previous year: KEUR 2,543). Value adjustments for trade receivables developed as follows:

	2018 KEUR	2017 KEUR
Accumulated impairment losses on 01/01	**595**	**539**
Expenses during the reporting period	208	104
Utilization of value adjustment	-11	-40
Payments received and impairment reversal of receivables originally written off	0	-8
Accumulated value adjustments on 12/31	**792**	**595**

The value adjustments were recognized in other operating expenses. The receivables written off primarily relate to the valuation based on the expected credit losses in accordance with IFRS 9 (previous year: model of losses incurred in accordance with IAS 39). Since the value adjustments of trade receivables in the Group are not significant in 2018 or the near future, the presentation of an impairment loss matrix was omitted for materiality reasons.

As of December 31, 2018, the age structure of the value adjusted trade receivables was as follows:

Book value		Thereof: due as of the reporting date in the following periods				
31.12.2018	Not overdue	up to 3 months	up to 6 months	up to 9 months	up to 12 months	over 1 year
	KEUR	KEUR	KEUR	KEUR	KEUR	KEUR
2,663	1,588	538	201	-34	181	189

Book value		Thereof: not value-adjusted as of the date of the financial statements and due in the following periods				
31.12.2017	Neither overdue nor value-adjusted	up to 3 months	up to 6 months	up to 9 months	Accumulated value adjustments as of January 1	over 1 year
KEUR	KEUR	KEUR	KEUR	KEUR	KEUR	KEUR
2,543	1,603	344	132	6	33	425

The trade receivables are not interest-bearing and generally have a maturity of 30 days for domestic customers. Receivables from customers located abroad generally have a maturity of 45 to 150 (previous year: 45 to 150) days.

7. Other financial assets

	31.12.2018	**31.12.2017**
	KEUR	KEUR
Safety deposit at banks	2,995	3,802
Governmental grants and assistance	126	0
Other	289	264
	3,410	4,066

aap pledged time deposits amounting to KEUR 328 (previous year: KEUR 803) as collateral for financial liabilities to the financing bank in the financial year. In addition, balances at credit institutions in the amount of KEUR 2,667 (previous year: KEUR 2,999) have been deposited as collateral for bank guarantees granted to third parties.

Of the financial assets, KEUR 2,850 was due within a year (previous year: KEUR 3,001). Non-current financial assets of KEUR 560 (previous year: KEUR 1,065) are due within the next three years.

Value adjustments on other financial assets were not required during the financial year 2018 and during the previous year.

There were no other overdue financial assets in the 2018 financial year or in the previous year.

8. Other assets

	31.12.2018 KEUR	31.12.2017 KEUR
Tax refund entitlements	152	166
Accruals	185	160
	337	**326**

The tax refund entitlements relate to VAT credits. The other assets are neither overdue nor value adjusted.

Income tax receivables as of December 31, 2018 amounted to KEUR 0 (previous year: KEUR 0).

9. Cash and cash equivalents

Cash and cash equivalents include exclusively bank balances and cash in hand and amount to KEUR 4,260 (previous year: KEUR 13,279).

10. Capital

The subscribed capital of the Company at December 31, 2018 amounted to EUR 28,706,910.00 (previous year: EUR 28,644,410.00) and was divided into 28,706,910 (previous year: 28,644,410) bearer shares which were fully paid-up. Bearer shares account for a notional proportion of the share capital of EUR 1.00 each (previous year: EUR 1.00) respectively. The change compared to the previous year resulted from the issue of a total of 62,500 bearer shares in the financial year 2018 to fulfill subscription rights from stock options exercised, increasing the subscribed capital by the corresponding amount of EUR 62,500.00.

Capital reserves contain premiums from share issues, voluntary additional payments by shareholders and shareholders' contributions arising from the issue of stock options. During the current financial year, EUR 150,338.97 was allocated to capital reserves (previous year: EUR 122,127.18 plus EUR 2,249,746.00 in accordance with Section 237 para. 5 of the German Stock Corporation Act (AktG) due to the collection of treasury shares) and EUR 16,414.27 was withdrawn from the capital reserves (previous year: EUR 17,632.17) respectively.

The statutory reserves amounts unchanged to EUR 41,703.95 at the end of the financial year and exceeds together with the capital reserves a tenth of the share capital.

Other revenue reserves increased by KEUR 490 due to reclassifications without effect on results to EUR 11,734. In the previous year a reversal was carried out in the amount of KEUR 3,420 for the acquisition of treasury shares.

Conditional capital

As of December 31, 2018, *aap* Implantate AG had conditional capital of up to a nominal total of EUR 1,164,000.00 (previous year: EUR 1,511,500.00) or up to 1,164,000 (previous year: 1,511,500) shares to fulfil stock options exercised which were issued as part of various stock options programs. Specifically:

The Annual General Meeting held on July 16, 2010 approved a conditional increase in the share capital by up to EUR 1,486,000.00 through the issue of up to 1,486,000 new bearer shares in the Company

with dividend entitlement from the beginning of the financial year in which they are issued (Conditional Capital 2010/I). The Conditional Capital 2010/I serves the purpose of fulfilling the exercise of subscription rights granted by December 19, 2011 on the basis of the authorization approved by the Annual General Meeting held on July 16, 2010. The conditional capital increase shall only be carried out insofar as holders of stock options exercise their right to subscribe to shares of the Company and the Company does not grant treasury shares or a cash settlement to fulfil the subscription rights. The Annual General Meeting held on July 6, 2012 partially waived the Conditional Capital 2010/I in the amount of EUR 139,400.00, and the Annual General Meeting held on June 16, 2017 partially waived the Conditional Capital 2010/I in the amount of EUR 854,100.00. In addition, 29,000 subscription rights were exercised in financial year 2017 and 167,500 in financial year 2018, granted by December 19, 2011 on the basis of the authorization approved by the Annual General Meeting held on July 16, 2010. Furthermore, a total of 105,000 subscription rights expired in financial year 2018 in accordance with the provisions of the stock option program. The Company's share capital is therefore increased conditionally by up to EUR 191,000.00 through the issue of up to 191,000 new bearer shares in the Company.

The Annual General Meeting held on July 6, 2012 approved a conditional increase in the share capital by up to EUR 300,000.00 through the issue of up to 300,000 new bearer shares in the Company with dividend entitlement from the beginning of the financial year in which they are issued (Conditional Capital 2012/I). The Conditional Capital 2012/I serves the purpose of fulfilling the exercise of subscription rights granted by Friday, December 19, 2014 on the basis of the authorization approved by the Annual General Meeting held on Friday, July 6, 2012. The conditional capital increase shall only be carried out insofar as holders of stock options exercise their right to subscribe to shares of the Company and the Company does not grant treasury shares or a cash settlement to fulfil the subscription rights. The Annual General Meeting held on June 16, 2017 partially waived the Conditional Capital 2012/I in the amount of EUR 182,000.00. In addition, 33,000 subscription rights were exercised in financial year 2017 and 40,000 in financial year 2018, granted by December 19, 2014 on the basis of the authorization approved by the Annual General Meeting held on July 06, 2012. The Company's share capital is therefore increased conditionally by up to EUR 45,000.00 through the issue of up to 45,000 new bearer shares in the Company.

The Annual General Meeting held on June 14, 2013 approved a conditional increase in the share capital by up to EUR 300,000.00 through the issue of up to 300,000 new bearer shares in the Company with dividend entitlement from the beginning of the financial year in which they are issued (Conditional Capital 2013/I). The Conditional Capital 2013/I serves the purpose of fulfilling the exercise of subscription rights granted by Saturday, December 19, 2015 on the basis of the authorization approved by the Annual General Meeting held on Friday, June 14, 2013. The conditional capital increase shall only be carried out insofar as holders of stock options exercise their right to subscribe to shares of the Company and the Company does not grant treasury shares or a cash settlement to fulfil the subscription rights. The Annual General Meeting held on June 16, 2017 partially waived the Conditional Capital 2013/I in the amount of EUR 182,000.00. In addition, 5,000 subscription rights were exercised in the 2018 financial year, which were granted by Saturday, December 19, 2015 on the basis of the authorization approved by the Annual General Meeting held on Friday, June 14, 2013. The Company's share capital is therefore increased conditionally by up to EUR 113,000.00 through the issue of up to 113,000 new bearer shares in the Company.

The Annual General Meeting held on June 13, 2014 approved a conditional increase in the share capital by up to EUR 300,000.00 though the issue of up to 300,000 new bearer shares in the Company with dividend entitlement from the beginning of the financial year in which they are issued (Conditional Capital 2014/I). The Conditional Capital 2014/I serves the purpose of fulfilling the exercise of subscription rights granted by December 18, 2016 on the basis of the authorization approved by the Annual General Meeting held on June 13, 2014. The conditional capital increase shall only be carried out insofar as holders of stock options exercise their right to subscribe to shares of the Company and the Company does not grant treasury shares or a cash settlement to fulfil the subscription rights. The Annual General Meeting held on June 16, 2017 partially waived the Conditional Capital 2014/I in the amount of EUR 105,000.00. Furthermore, a total of 30,000 subscription rights forfeited as a result of the departure of a person entitled to exercise an option in accordance with the provisions of the stock option program and these may not be reissued. The Company's share capital is therefore increased conditionally by up to EUR 165,000.00 through the issue of up to 165,000 new bearer shares in the Company.

The Annual General Meeting held on June 12, 2015 approved a conditional increase in the share capital by up to EUR 150,000.00 through the issue of up to 150,000 new bearer shares in the Company with dividend entitlement from the beginning of the financial year in which they are issued (Conditional Capital 2015/I). The Conditional Capital 2015/I serves the purpose of fulfilling the exercise of subscription rights granted by December 19, 2017 on the basis of the authorization approved by the Annual General Meeting held on June 12, 2015. The conditional capital increase shall only be carried out insofar as holders of stock options exercise their right to subscribe to shares of the Company and the Company does not grant treasury shares or a cash settlement to fulfil the subscription rights.

The Annual General Meeting held on June 16, 2017 approved a conditional increase in the share capital by up to EUR 500,000.00 through the issue of up to 500,000 new bearer shares in the Company with dividend entitlement from the beginning of the financial year in which they are issued (Conditional Capital 2017). The Conditional Capital 2017 serves the purpose of fulfilling the exercise of subscription rights granted by December 3, 2019 on the basis of the authorization approved by the Annual General Meeting held on June 16, 2017. The conditional capital increase shall only be carried out insofar as holders of stock options exercise their right to subscribe to shares of the Company and the Company does not grant treasury shares or a cash settlement to fulfil the subscription rights.

Authorizations

By resolutions of the Annual General Meeting of July 16, 2010, July 06, 2012, June 14, 2013, June 13, 2014, June 12, 2015, and June 16, 2017 (previous year: July 16, 2010, July 06, 2012, June 14, 2013, June 13, 2014, June 12, 2015, and June 16, 2017), the Management Board or the Supervisory Board was authorized to launch stock option programs and issued stock options to an entitled group of people within the defined issue periods. Currently, an authorization pursuant to the Annual General Meeting resolution from June 16, 2017 still exists (previous year: Authorization pursuant to the Annual General Meeting resolution dated June 16, 2017). The conditions for the exercise thereof are described under 11. Share-based payments.

Treasury shares

The Annual General Meeting held on June 13, 2014 authorized the Company, in accordance with Section 71 para. 1 No. 8 AktG, to acquire treasury shares; an authorization that was valid until June 12, 2019 and that was revoked prematurely by the Annual General Meeting's resolution of June 22, 2018.

The resolution passed by the Annual General Meeting held on June 22, 2018 authorized the Company, in accordance with Section 71 para. 1 No. 8 AktG, to acquire treasury shares up to a total notional amount of 10% of the share capital in the Company existing at the time of adoption of the resolution in question until June 21, 2023. The shares acquired together with the other treasury shares held by or attributed to the Company in accordance with Article 71a et seqq. AktG may at no time exceed 10% of the share capital. The authorization must not be used for the purpose of trading in treasury shares. The authorization can be exercised by the Company or by third parties, in full or partial amounts, on one or more occasions, on behalf of the Company for one or more purposes. The acquisition takes place at the discretion of the Management Board, either on the stock exchange, through a public offer, or as a public invitation to make such an offer. The Management Board is authorized to use Company shares acquired on the basis of this authorization for all legally permissible purposes, also in particular for the purposes stated in the authorization. The right of shareholders to subscribe to these treasury shares is excluded insofar as these shares are used for the purposes detailed in the authorization or if compensation for fractional amounts is required in a sale to all shareholders.

Authorized capital

As of December 31, 2018, *aap* Implantate AG held authorized capital with a nominal total of EUR 6,959,963.00 which was unchanged compared to the previous year and can be issued in partial amounts up to a limit of 6,959,963 bearer shares.

	Authorization of the Management Board by the Annual General Meeting resolution of	**Term of the authorization**	**Approved capital in EUR**	**Utilization in EUR**	**Remaining approved capital in EUR**
Authorized capital 2014/I	06/13/2014	06/12/2019	6,959,963.00	0.00	6,959,963.00

The capital stock of the company can be increased on one or more occasions against cash contributions or contributions in kind.

Approved capital 2014/I:

The new shares are generally to be offered to the shareholders for subscription. They can also be offered by one or more financial institutions or by one or more equivalent institutions as long as they are offered to the shareholders for subscription (indirect subscription right).

Subject to Supervisory Board approval, the subscription rights of the shareholders may be excluded:

a) up to an amount not exceeding 10% of the current capital stock in order to enable the new shares to be issued against cash contributions in an amount which is not significantly below the market price of the company's existing exchange-listed shares of the same class. This 10% limit includes the shares which were sold during the terms of this authorization due to an authorization of the Annual General Meeting pursuant to Section 71 para. 1 No. 8 German Stock Corporation Act (AktG) and under exclusion of subscription rights pursuant to Section 186 para. 3 Clause 4 German Stock Corporation Act (AktG). Furthermore, shares are also to be included which were issued

during the term of this authorization for serving convertible bonds and/or bonds with warrants, provided that the bonds were issued in the corresponding application of Section 186 para. 3 Clause 4 German Stock Corporation Act (AktG) under exclusion of subscription rights;

b) for the purpose of the acquisition of assets in kind, in particular through the acquisition of companies or of shareholdings in companies or through the acquisition of other assets, if the acquisition or shareholding is in the well-intended interests of the company and should be performed against the issue of shares;

c) insofar as necessary, to grant holders of convertible bonds and/or warrant bonds issued by the company or its subsidiaries, a subscription right on new shares in the extent, as it would be granted to them after exercising their conversion or option right;

d) in order to offset fractional amounts.

11. Share-based Payments

The essential conditions of the programs in effect in the financial year (SOP) are summarized in the following overview:

Significant Terms of the Applicable Option Programs		
	2010, 2017	**2012, 2013, 2014, 2015**
Subscription Right	Each option grants the beneficiaries the right to subscribe one no-par value bearer share in *aap* Implantate AG upon payment of the exercise price.	
	The pecuniary advantage is restricted to four times the exercise price.	
Authorized Individuals	• Employees and Management Board members of the Company • Employees of associated companies in accordance with Sections 15 et seq. AktG • Only in the 2010 option program: Members of the management of associated companies in accordance with Sections 15 et seq. AktG	• Only in the 2012, 2013, and 2014 option programs: Employees of the Company and employees of associated companies in accordance with Sections 15 et seq. AktG • Only in the 2015 option program: Board members of the Company
Issue Period	2010: Until 12/19/2011 2017: Until 12/3/2019	2012: Until 12/19/2014 2013: Until 12/19/2015 2014: Until 12/18/2016 2015: Until 12/19/2017
Waiting Period	4 years from the date of issue	
Term	8 years from the date of issue	
Exercise Periods	Within four weeks, beginning on the second trading day of the Frankfurt Stock Exchange • After the Company's Annual General Meeting • After the date on which the management has made the Annual Financial Statement, the half-yearly financial report or the interim reports for the first or third quarter of the Company's financial year available to the public at the stock exchange	
Exercise Price	The average closing price of the *aap* share in electronic trading (XETRA or a successor system) on the Frankfurt Stock Exchange on the five trading days preceding the first day of the purchase period, at least according to the lowest issue price in accordance with Section 9 para. 1 AktG	

Performance Target	2010, 2012, 2013, and 2014 option programs: The (average) closing auction price of the *aap* share in the XETRA trading system (or a comparable successor system) on the Frankfurt Stock Exchange must exceed the exercise price on the last trading day prior to the date on which the subscription right is exercised by at least 10%.
	Option program 2015: The closing auction price of the *aap* share in the XETRA trading system (or a comparable successor system) on the Frankfurt Stock Exchange on the last trading day prior to the date on which the subscription rights are exercised must be at least EUR 3.50.
	2017 option programs: The (average) closing auction price of the *aap* share in XETRA trading (or a comparable successor system) on the Frankfurt Stock Exchange must exceed the exercise price on the last trading day prior to the date on which the subscription right is exercised by at least 15%.
Fulfilment	The Company can choose whether to fulfil the obligation by issuing equity instruments or cash settlements.

All option programs were issued in two or more tranches. In the past, payments have been settled in cash. On December 19, 2014, the Management Board decided that, with immediate effect, further options can only be exercised through the acquisition of equity instruments. Due to the legal requirements, only the options granted to the former Chief Executive Officer and current Chair of the Supervisory Board are settled in cash. The provision accrued for this in the previous year was fully utilized in 2018.

At the Annual General Meeting on June 16, 2017, the Management Board or the Supervisory Board was authorized to set-up a stock option plan of up to 500,000 stock options for an entitled group of people by December 3, 2019 (2017 stock option program). During the reporting year, 100,000 options from the 2017 stock option program were issued to employees of *aap* Implantate AG. During the previous year, 60,000 options from the 2015 stock option program were issued to members of the Management Board of *aap* Implantate AG. In addition, 449,500 stock options were issued from the 2017 stock option program. Of this amount, 200,000 stock options were issued to members of the Company's Management Board and 249,500 stock options to employees of *aap* Implantate AG. The fair values were determined using a binomial model. The following parameters were considered in this determination:

	Tranche
2017 Stock Option Program	3
Grant date	28.06.2018
Performance Target	EUR 2.23
Risk-free interest rate	0.00%
Expected volatility	41.02%
Expected dividend payment	EUR 0.00
Share price on the measurement date	EUR 1.94
Expected option term	5 years

	Tranche
2017 Stock Options Program	4
Grant date	03.12.2018
Performance Target	EUR 1.29
Risk-free interest rate	0.00%
Expected volatility	39.04%
Expected dividend payment	EUR 0.00
Share price on the measurement date	EUR 1.12
Expected option term	5 years

	Tranche
2017 Stock Option Program	1
2015 Stock Option Program	2
Grant date	05.07.2017
Performance Target SOP 2017	EUR 1.66
Performance Target SOP 2015	EUR 3.50
Risk-free interest rate	0.00%
Expected volatility	40.13%
Expected dividend payment	EUR 0.00
Share price on the measurement date	EUR 1.46
Expected option term	5 years

	Tranche
2017 Stock Option Program	2
Grant date	01.12.2017
Performance Target	EUR 1.89
Risk-free interest rate	0.00%
Expected volatility	38.72%
Expected dividend payment	EUR 0.00
Share price on the measurement date	EUR 1.66
Expected option term	5 years

The best estimate by the Management Board regarding the following influencing factors were included in the calculation of the expected option term: The probability that the market conditions tied to the option are met, and assumptions about exercise behavior. Volatility was based on weekly yields. The expected volatility of the share is based on the assumption that historical volatilities foreshadow future trends, whereby the share's actual volatility may deviate from the assumptions. For consideration purposes of early exercise effects, it was assumed that the employees will exercise their exercisable options when the share price corresponds to 1.4 to 2.5 times the exercise price.

Option program	Date of acceptance per tranche	Number of options granted	Expiration date	Exercise price in EUR	Fair value on the grant date in EUR
2010	07/15/2011	481,600	07/14/2019	1.03	0.40
2010	11/15/2011	55,000	11/14/2019	1.00	0.39
2012	07/25/2012	65,000	07/24/2020	1.00	0.51
2012	11/28/2012	180,000	11/27/2020	1.30	0.63
2012	07/03/2013	65,000	07/02/2021	1.27	0.64
2012	11/25/2013	5,000	11/24/2021	1.78	1.02
2013	07/03/2013	165,000	07/02/2021	1.27	0.64
2013	11/25/2013	135,000	11/24/2021	1.78	1.02
2013	07/01/2015	49,000	06/30/2023	2.51	1.02
2013	12/02/2015	26,500	12/01/2023	1.53	0.67
2014	07/01/2015	155,000	30.06.2023	2.51	1.02
2014	12/02/2015	133,500	01.12.2023	1.53	0.67
2014	07/04/2016	30,000	07/03/2024	1.36	0.54
2014	12/01/2016	66,500	11/30/2024	1.31	0.46
2015	07/01/2015	90,000	30.06.2023	2.51	1.00
2015	07/05/2017	60,000	07/04/2025	1.45	0.56
2017	07/05/2017	300,000	04.07.2025	1.45	0.61
2017	12/01/2017	149,500	11/30/2025	1.65	0.67
2017	06/28/2018	80,000	06/27/2026	1.94	0.83
2017	12/03/2018	20,000	12/02/2026	1.12	0.46

With the fulfillment of the exercise requirements, 17,500 options from the 2010 stock option program (tranche 2), 10,000 options from the 2012 stock option program (tranche 1), 20,000 options from the 2012 stock option program (tranche 2), 10,000 options from the 2012 stock option program (tranche 3), and 5,000 options from the 2013 stock option program (tranche 1) were exercised by the acquisition of shares during the reporting year. In addition, 150,000 options from the 2010 stock option program (tranche 3) were exercised in the form of cash settlement. In the previous year, 29,000 options from the 2010 stock option program (tranche 3) and 33,000 options from the 2012 stock option program (tranche 3) were exercised by the acquisition of shares during the reporting year. The average share price on the day of the derecognition of the shares at the bank managing *aap* ranged from EUR 1.80 to EUR 1.90 (previous year: between EUR 1.47 and EUR 1.48).

The range of exercise prices for the stock options outstanding as of December 31, 2018 ranged from EUR 1.00 to EUR 2.51 (previous year: EUR 1.00 to EUR 2.51).

The following table shows the number and weighted average exercise prices (WAEP) as well as the development of stock options in the financial year.

	2018		2017	
	Quantity	WAEP in EUR	Quantity	WAEP in EUR
Pending as of 1/1	1,436,000	1.44	1,046,00	1.42
granted	100,000	1.78	532,000	1.50
expired forfeited	-225,000	1.42	-80,000	1.73
exercised	-212,500	1.08	-62,000	1.16
Outstanding as of 12/31	**1,098,500**	**1.55**	**1,436,000**	**1.44**
of which exercisable	**313,500**	**1.19**	**631,000**	**1.15**

The stock options outstanding at the end of the financial year have a weighted average remaining term of 4.7 years (previous year: 3.9 years).

The expenses recognized during the reporting period for ongoing option programs totaled KEUR 121 (previous year: KEUR 95), of which KEUR 121 was for programs offset through equity instruments (previous year: KEUR 95).

12. Provisions

2018

	Balance as of 01/01/2018 KEUR	Consumption KEUR	Release KEUR	Addition KEUR	Reclassification KEUR	Balance as of 31.12.2018 KEUR	Of which RT * >1 year KEUR
Employee commitments	19	0	0	0	0	19	0
Storage costs	27	0	0	0	0	27	22
Litigation costs and risks	298	-255	-3	55	0	95	0
Other provisions	406	-270	0	0	0	173	15
Total	750	-525	-3	55	0	314	37

* RT = Residual term

2017

	Balance as of 01/01/2017 KEUR	Consumption KEUR	Release KEUR	Addition KEUR	Reclassification KEUR	Balance as of 31.12.2017 KEUR	Of which RT * >1 year KEUR
Employee commitments	41	-41	0	19	0	19	0
Storage costs	27	0	0	0	0	27	22
Litigation costs and risks	0	0	0	248	50	298	0
Other provisions	343	0	0	113	-50	406	15
Total	412	-41	0	380	0	750	37

* RT = Residual term

13. Liabilities

The residual terms of the liabilities are as follows:

2018

	12/31/2018 total KEUR	Residual term (RT) Up to 1 year KEUR	1-5 years KEUR	More than 5 years KEUR	Previous year KEUR
Financial liabilities	5	5	0	0	338
Trade accounts payable	2,149	2,149	0	0	1,752
Other financial liabilities	2,139	1,796	343	0	2,666
Other liabilities	1,216	483	334	399	1,080
	5,509	4,433	677	399	5,836

2017

	12/31/2017 total KEUR	Residual term (RT) Up to 1 year KEUR	1-5 years KEUR	More than 5 years KEUR	Previous year KEUR
Financial liabilities	338	333	5	0	1,260
Trade accounts payable	1,752	1,752	0	0	2,541
Other financial liabilities	2,666	1,922	744	0	2,131
Other liabilities	1,080	402	679	0	1,465
	5,836	4,409	1,428	0	7,397

Of the non-current liabilities (RT > 1 year) of KEUR 1,076 (previous year: KEUR 1,423), KEUR 303 (previous year: KEUR 633) was interest-bearing. Of the total current liabilities (RT < 1 year) of KEUR 4,433 (previous year: KEUR 4,409), KEUR 330 (previous year: KEUR 799) were interest-bearing. The average interest burden was approx. 1.9% (previous year: 2.4%).

aap's current and non-current financial liabilities are owed to credit institutions and are denominated in euros.

14. Other financial liabilities

2018

		Residual term (RT)			
	31.12.2018 KEUR	Up to 1 year KEUR	1-5 years KEUR	More than 5 years KEUR	Previous year KEUR
Capital lease obligations	629	326	303	0	1,095
Other financial liabilities	1,510	1,470	40	0	1,571
	2,139	**1,796**	**343**	**0**	**2,666**

2017

		Residual term (RT)			
	31.12.2017 KEUR	Up to 1 year KEUR	1-5 years KEUR	More than 5 years KEUR	Previous year KEUR
Capital lease obligations	1,095	466	629	0	1,570
Other financial liabilities	1,571	1,456	115	0	561
	2,666	**1,922**	**744**	**0**	**2,131**

The remaining financial liabilities primarily relate to obligations from severance agreements of KEUR 333 (previous year: KEUR 533), employee bonuses and other bonuses of KEUR 488 (previous year: KEUR 433), repayment obligations for government grants and supplements of KEUR 384 (previous year: KEUR 395), and travel expenses of KEUR 83 (previous year: KEUR 13).

Liabilities from finance leases relate to machines and are secured by the leased assets. The agreed term of the respective agreements averages 36 and 60 months. Contract extension options or options for premature purchase are not provided for contractually. The interest rate was agreed for the entire term of the leasing relationship and averages 1.7% (previous year: 2.5%).

15. Other liabilities

2018

		Residual term (RT)			
	31.12.2018 KEUR	Up to 1 year KEUR	1-5 years KEUR	More than 5 years KEUR	Previous year KEUR
Special items for investment grants	824	91	334	399	771
Personnel liabilities	294	294	0	0	202
Tax liabilities	97	97	0	0	105
Other liabilities	1	1	0	0	2
	1,216	483	334	399	1,080

2017

		Residual term (RT)			
	31.12.2017 KEUR	Up to 1 year KEUR	1-5 years KEUR	More than 5 years KEUR	Previous year KEUR
Special items for investment grants	771	93	336	342	865
Personnel liabilities	202	202	0	0	477
Tax liabilities	105	105	0	0	122
Other liabilities	2	2	0	0	1
	1,080	401	336	342	1,465

The personnel liabilities mainly relate to paid annual leave, liabilities from taxes and payable wage taxes.

16. Other financial liabilities

Other financial liabilities break down as follows:

2018

	31.12.2018 KEUR	Payments 2019 KEUR	Payments 2020 until 2023 KEUR	Payments 2024 KEUR
Future payments from rent	1,541	555	986	0
Future payments from other operating lease contracts	260	127	133	0
Future payments from financing lease contracts	640	334	306	0
Future payments for non-current assets	57	57	0	0
Future payments from framework contracts	666	333	333	0
	3,164	**1,406**	**1,758**	**0**

2017

	31.12.2017 KEUR	Payments 2018 KEUR	Payments 2019 until 2022 KEUR	Payments 2023 KEUR
Future payments from rent	2,090	549	1,541	0
Future payments from other operating lease contracts	300	124	176	0
Future payments from financing lease contracts	1,125	485	640	0
Future payments for non-current assets	80	80	0	0
Future payments from framework contracts	1,000	333	667	0
	4,595	**1,571**	**3,024**	**0**

The future rent payments for production and business premises include annual contractual rent increase clauses of 1.5%. Expenses recognized in the reporting period for current lease agreements and other operating leasing contracts totaled KEUR 791 (previous year: KEUR 782).

The future payments from finance leasing contracts amount to KEUR 640 (previous year: KEUR 1,125) and include future interest payments of KEUR 12 (previous year: KEUR 30). The recognized book value is KEUR 629 (previous year: KEUR 1,095).

17. Contingent liabilities

There are contingent liabilities in the amount of KEUR 120 (previous year: KEUR 921) due to received investment grants and supplements from the government. Accordingly the financed assets must remain in the Berlin premises for at least five years after completion of the investment project. Due to the operating conditions, the Management Board is anticipating that the assets remain in the Berlin site and the remaining requirements will be met, making a claim unlikely.

F. Reporting on financial instruments

1. Financial instruments by valuation category

The fair values of cash and bank balances, current receivables, trade liabilities, other financial liabilities and financial debts correspond to their book values, especially in view of the short residual term of financial instruments of this kind.

The values of individual financial instruments by valuation category are shown in the following tables:

2018	Valuation categories in accordance with IFRS 9	Book value 12/31/2018 KEUR	Amortized costs KEUR	Valuation acc. to IAS 17 KEUR	Fair value 12/31/2018 KEUR
Assets					
Financial assets	FVOCI	183	183		183
Accounts receivable (trade debtors)	AC	2,663	2,663		2,663
Other financial assets	AC	3,410	3,410		3,410
Cash and cash equivalents	AC	4,260	4,260		4,260
Liabilities					
Financial liabilities	FLAC	5	5		5
Trade accounts payable	FLAC	2,149	2,149		2,149
Capital lease obligations	-	629	-	629	-
Other financial liabilities	FLAC	1,510	1,510		1,510

Of which aggregated to IFRS 9 valuation categories:

	Valuation categories in accordance with IFRS 9	Book value 12/31/2018 KEUR	Amortized costs KEUR	Fair value 12/31/2018 KEUR
Financial assets available for sale	FVOCI	183	183	183
Loans and receivables (including cash and cash equivalents)	AC	10,333	10,333	10,333
Total financial assets		**10,516**	**10,516**	**10,516**
Liabilities held at amortized costs	FLAC	3,664	3,664	3,664
Total financial liabilities		**3,664**	**3,664**	**3,664**

2017	Valuation categories in accordance with IAS 39	Book value 12/31/2017 KEUR	Amortized costs KEUR	Valuation acc. to IAS 17 KEUR	Fair value 12/31/2017 KEUR
Assets					
Financial assets	AfS	192	192		192
Accounts receivable (trade debtors)	LaR	2,543	2,543		2,543
Other financial assets	LaR	4,066	4,066		4,066
Cash and cash equivalents	LaR	13,279	13,279		13,279
Liabilities					
Financial liabilities	FLAC	338	338		338
Trade accounts payable	FLAC	1,752	1,752		1,752
Capital lease obligations	-	1,095	-	1,095	-
Other financial liabilities	FLAC	1,080	1,080		1,080

Of which aggregated by IAS 39 valuation categories:

	Valuation categories in accordance with IAS 39	Book value 12/31/2017 KEUR	Amortized costs KEUR	Fair value as at 31.12.2017 KEUR
Financial assets available for sale	AfS	192	192	192
Loans and receivables (including cash and cash equivalents)	LaR	19,888	19,888	19,888
Total financial assets		**20,080**	**20,080**	**20,080**
Liabilities held at amortized costs	FLAC	3,170	3,170	3,170
Total financial liabilities		**3,170**	**3,170**	**3,170**

The financial assets available for sale relate to shares in AEQUOS Endoprothetik GmbH.

2. Expenses, Income, Losses and Profits from Financial Instruments

	Liabilities held at amortized costs in accordance with IFRS 9	Liabilities held at amortized costs in accordance with IFRS 9
	2018	**2018**
	KEUR	**KEUR**
Unrealized income / Expenses from Intercompany loans at the balance sheet date	514	0
Realized exchange rate differences	-7	0
Interest income	0	0
Interest paid	0	-30
Expenses from write-downs	-208	0
Income from write-ups	0	0
Net income	**299**	**-30**

	Loans and receivables (including cash and cash equivalents) in accordance with IAS 39	Liabilities held at amortized costs in accordance with IAS 39
	2017	**2017**
	KEUR	**KEUR**
Unrealized income / Expenses from Intercompany loans at the balance sheet date	-1,261	0
Realized exchange rate differences	-26	0
Interest income	3	0
Interest paid	0	-48
Expenses from write-downs	-104	0
Income from write-ups	8	0
Net income	**-1,380**	**-48**

3. Management of Financial Risks

Due to its operational activity, the *aap* Group is subject to the following financial risks:

- Market risks
- Liquidity risks
- Credit risks

The risk management of the Group is performed by the central finance department pursuant to the guidelines approved by the Management Board, with the objective of minimizing potentially negative effects on the financial position of the Group. For this purpose, financial risks are identified, evaluated and secured in close cooperation with the operating units of the Group.

Internal guidelines bindingly provide the scope, responsibilities and controls for this. The risks of the *aap* Group as well as goals and processes of risk management are explained in detail in the management report in the Section "Risk report" (comp. Section VI.).

Market risks

A market risk is defined as the risk that the fair value or future cash flows of a financial instrument fluctuate due to changes in the market prices. The market risk includes interest rate risk, currency risk and other price risks, such as the commodity risk or the share price risk.

Interest Rate Risks

Interest rate risks arise for financial liabilities and cash investments. The Company considers the gross risk in terms of probability to be high, with a low potential level of damage. *aap* mitigates these risks with Group-wide cash management and the completion of primary financial transactions. Interest rate and price change risks are controlled through the mixture of terms as well as fixed and variable interest positions. All interest-bearing liabilities of the Group are at a fixed interest rate. As of December 31, 2018, 100% (previous year: 100%) of the borrowed capital of the Group at fixed interest. Changes to market interest rates only have an impact if these financial instruments were to be entered onto the balance sheet at fair value. However, this is not the case. Since all liabilities were of fixed interest at 12/31/2018, no sensitivity analyses for the variable interest-bearing financial liabilities were made.

Foreign currency risks

As part of sensitivity analyses, foreign currency risks were calculated for businesses in US Dollars. The effects for other foreign currencies of the Group are of secondary significance. As of December 31, 2018 foreign currency receivables made up around 24.6% (previous year: 27.9 %) of the receivables and was exclusively allotted to receivables in US dollars. Foreign currency liabilities amounted to around 8.0% of the Group's borrowings (previous year: approx. 10.0%). The share of US dollar liabilities was about 5.1% (previous year: 7.2%). If the exchange rate of the euro relative to the respective foreign currencies had changed by 10% and if all other variables were to have remained constant, earnings before taxes for the reporting period would have been KEUR 57 higher or KEUR 47 lower (previous year: KEUR 106 higher or KEUR 85 lower). For this, the foreign currency losses from the liabilities and receivables based on US Dollars from trade receivables and services would have been the cause. In light of this and a cost-benefit assessment, the Group has decided to do without the conclusion of hedging transactions.

Liquidity risks

aap is exposed to liquidity risks, which result inter alia from a lack of availability of financing sources. We combat liquidity risk with a healthy mix of short-term and long-term granted loans, as well as with equity instruments. *aap* estimates the gross risk of a liquidity bottleneck to be low in terms of probability, but with a severe potential level of damage.

In financial year 2018, the Company generated EBITDA of EUR -6.4 million and the cash flow from current business activities was negative at EUR 5.9 million. As of December 31, 2018, *aap* had cash

holdings of EUR 7.3 million[30], of which EUR 4.3 million was shown as cash and cash equivalents in the consolidated balance sheet as of December 31, 2018.

Risk of the occurrence of liquidity bottlenecks even after implementation of the capital increase

For financial year 2019 and the following years, the Management Board has set itself the goal of achieving significant sales growth, and further developing the Company's pioneering and innovative silver coating technology and to receive market approval. With regard to the silver coating technology, the Company strives for a start of a human clinical study as a prerequisite for the planned market approval in financial year 2019.

Based on the strategic alignment of the Company, the planned sales growth and the targeted start of the human clinical study different measures to strengthen the financial base are necessary. In this regard, the Management Board anticipates that the Company will receive inflows of at least EUR 2.3 million from the capital increase announced on April 17, 2019 due to existing declarations of commitment from existing shareholders. In addition to the implementation of the capital increase, the Company intends to conclude factoring as well as sale and rent back agreements, which should lead to an inflow of additional funds amounting to at least EUR 1.7 million in financial year 2019. Thereby the company would have a total of at least around EUR 4.0 million available from the financing measures in the coming months. With these inflows and the realization of the planned sales growth and the reduction of costs the financing requirements are covered for at least the next twelve months.

Based on the underlying planning, the Management Board also expects to generate cash inflows to a similar extent from technology-related transactions (e.g. outlicensing of technologies, joint venture agreements with a carve-out of technologies or involving other companies in joint development of products), from public funds and from released cash payments due to the conclusion of legal disputes, which shall sustainably secure the company's financing at least by end of 2020.

However, it is possible that the expectations and assumptions underlying this plan with regard to business development and the measures expected to lead to cash inflows may prove inaccurate. Examples of this may include a significant shortfall in the planned sales development and consequently in expected cash inflows from current business activities, unexpected additional expenses associated with the development of silver coating technology, additional investments being required, delays in projects, or an increase in the costs in general compared to current assumptions. As a consequence, despite the implementation of the capital increase in a volume which corresponds at least to the binding committed volume, there may be an additional liquidity requirement, possibly to be met in the short term, that could have to be covered by raising further equity or borrowed capital. If the Company does not succeed to a sufficient extent in concluding the aforementioned planned factoring and sale and rent back agreements, or in developing other alternative financing sources, and if the inflow of funds is therefore limited to the existing declarations of commitment from existing shareholders amounting to EUR 2.3 million as part of the capital increase, the Company would have to undertake significant operational and strategic corrections that could lead to the further development of the Company being endangered.

[30] In the consolidated balance sheet as of December 31, 2018, EUR 4.3 million is shown as cash and cash equivalents, while bank balances amounting to EUR 3.0 million are shown under other non-current and current financial assets as these are pledged as collateral for financial liabilities or have been deposited as cash collateral for bank guarantees granted to third parties.

Continuing losses from operating activities

The Company reports a negative EBITDA of EUR -6.4 million in financial year 2018. After preliminary evaluations, sales in the first quarter of 2019 amounted to approx. EUR 3.5 million and were therefore approx. EUR 0.5 million or around 17% above the guidance communicated in January 2019 (Q1/2019 sales: EUR 2.0 million to EUR 3.0 million). Against the backdrop of this development, the Management Board now expects an EBITDA of between EUR -1.2 million and EUR -0.9 million for the first quarter of 2019 (previously: EUR -1.8 million to EUR-1.2 million). The Management Board continues to maintain its original forecast for sales of between EUR 13.0 million and EUR 15.0 million, and an EBITDA of between EUR -4.4 million and EUR -2.8 million for the full year 2019.

The Company also generated losses in financial year 2018, and invested in the development of its forward-looking technologies. As a result, its financial resources decreased accordingly. Based on the aforementioned forecast for the financial year 2019, the Management Board also expects a reduction in the financial resources for this financial year. In accordance with the underlying corporate planning for the following years, the Management Board expects that the Company will be able to generate a positive result in the foreseeable future and will thus achieve a corresponding self-financing capability, in particular through further sales growth and the implementation of technology-based transactions. Assuming that no technology-based transactions can be implemented, the Management Board expects, at least for the years 2019 and 2020, to have an improved, but still negative, EBITDA and a negative operating cash flow.

However, it cannot be guaranteed that the Company will be able to generate a positive result in the foreseeable future meaning that for the foreseeable future the Company could be dependent on equity or borrowed capital to provide its financial resources.

aap estimates the risk of having no access to an appropriate source of financing in such a case as low. On the one hand, the Company was a net-unindebted company at the end of 2018 and had an equity ratio of 83%, which is well above the market average. On the other hand, with its inventories and a comprehensive IP portfolio, *aap* still has sufficient collateral to cover any loans.

In the 2018 financial year, loans from banks in the amount of KEUR 333 (previous year: KEUR 1,283) were repaid as scheduled.

The contractually fixed payments, such as repayments and interest, from recognized, financial liabilities, are described below:

		Principal payments			Interest payments		
	31.12.2018	2019	2020 up to 2023	2024	2019	2020 up to 2023	2024
		KEUR	KEUR	KEUR	KEUR	KEUR	KEUR
Financial liabilities	5	5	0	0	0	0	0
Capital lease obligations	629	325	303	0	9	3	0
Other financial liabilities	1,510	1,470	40	0	0	0	0
Total	2,144	1,800	343	0	9	3	0

		Principal payments			Interest payments		
	31.12.2017	2018	2019 up to 2022	2023	2018	2019 up to 2022	2023
		KEUR	KEUR	KEUR	KEUR	KEUR	KEUR
Financial liabilities	338	333	5	0	6	0	0
Capital lease obligations	1,095	466	629	0	19	12	0
Other financial liabilities	1,572	1,456	116	0	0	0	0
Total	3,005	2,255	750	0	25	12	0

Credit risks

Credit risk is the risk of default by a customer or contracting partner that leads to a need for value adjustments of assets, financial investments, or receivables in the consolidated balance sheet. Accordingly, the risk of the carrying amount of these assets is limited.

Credit risks are primarily the result of trade receivables. Credit risks to contractual partners are reviewed before the agreement is concluded and are continuously monitored. Credit risks remain, as customers may not meet their payment obligations. The *aap* Group limits this risk through a regular credit rating of the customer as well as through efficient receivables management. In addition, the claims are secured through retention of title, so that the products can be demanded to be returned in case of non-payment and can also be sold to other *aap* customers after review and calculation. The defaults of financial claims during the reporting year amounted to KEUR 0 (previous year: KEUR 40).

4. Capital management

aap controls its capital with the objective of ensuring the long-term development of the Company, its short-term solvency, and a sufficiently high degree of self-financing. In doing so, it is ensuring that all group companies can operate under the going-concern assumption. In addition, the goal of capital management of *aap* includes ensuring that a credit rating and a good equity ratio corresponding to the load contracts are retained to support its business activities. The group controls its capital structure and makes adjustments by taking into account the change of economic conditions. *aap* monitors its capital using the degree of debt and interest coverage ratio as well as the net debt ratio. In the process, the Management Board of *aap* assesses a debt coverage ratio that is higher than 0 but less than 2.0 and an interest coverage ratio higher than ten as strategic target figures to be reached. *aap* is not subject to any further articles or contractual obligations to capital retention beyond the rules governing stock corporations.

Debt/interest coverage ratio

	31.12.2018	31.12.2017
Interest-bearing liabilities	633	1,432
Balances below credit lines	328	803
Interest-bearing liabilities (net)	305	629
EBITDA	-6,406	-6,211
Debt coverage ratio (DCR)	**-0.05**	**-0.10**
Interest paid	30	48
EBITDA	-6,406	-6,211
Interest coverage ratio (ICR)	**-213.6**	**-129.4**

Net debt

The net leverage ratio of *aap* at the end of the year is comprised as follows:

	31.12.2018	31.12.2017
Interest-bearing liabilities	633	1,432
Cash and cash equivalents	4,260	13,279
Net debt	0	0
Shareholders' equity	34,919	42,559
Net debts for equity capital (allocation)	**0%**	**0%**

G. Other disclosures

1. Relationships with related companies and individuals

Relationships with individuals relate only to the Supervisory Board and the Management Board and are presented separated under section 2.

2. Management Board, Supervisory Board

Members of the Company's Management Board during the reporting year and until the preparation of the consolidated financial statements were

Mr. Bruke Seyoum Alemu, **Chief Executive Officer, Berlin**

Mr. Marek Hahn, **Chief Financial Officer**, Berlin

The total remuneration of the Management Board amounted to KEUR 629 (previous year: KEUR 799). The main features of the remuneration system of the Management Board and Supervisory Board are presented in the remuneration report. It is part of the management report.

	Remuneration components				
	Performance-unrelated	Performance-related	With long-term incentivizing effect	Total 2018	Total 2017
	KEUR	KEUR	KEUR	KEUR	KEUR
Bruke Seyoum Alemu, CEO	321	9	38	368	459
Marek Hahn, CFO	230	6	25	261	340
	551	15	63	629	799

The fixed remuneration component contains payments in a reinsured provident fund to build a company pension in the amount of KEUR 43 (previous year: KEUR 43), of which KEUR 25 was for Mr. Alemu and KEUR 18 was for Mr. Hahn.

The company concluded a D&O insurance for the Management Board, the Supervisory Board, and executives. The fees in 2018 totaled KEUR 24 (previous year: KEUR 20).

In the reporting year, the following individuals belonged to the Supervisory Board until the preparation of the consolidated financial statements:

Mr. Biense Visser (Chairman), CEO of Dümmen Orange, Egmond aan Zee, Netherlands

Ms. Jacqueline Rijsdijk (Deputy Chairwoman), member of several Supervisory Boards, Leiderdorp, Netherlands

Mr. Rubino Di Girolamo, President of the Administrative Board of Metalor Dental Holding AG, Oberägeri near Zug, Switzerland

The Supervisory Board members were elected in accordance with the articles of association for the full term until the end of the Annual General Meeting which decides on their discharge for the 2021 financial year.

The remuneration of the Supervisory Board totaled KEUR 95 in the financial year (previous year: KEUR 90). It is comprised as follows:

	2018 KEUR	2017 KEUR
Mr. Rubino Di Girolamo	35	30
Mr. Biense Visser	30	30
Ms. Jacqueline Rijsdijk	30	30
Total	95	90

Payments of KEUR 45 occurred in the reporting year (previous year: KEUR 90) to:

	2018 KEUR	2017 KEUR
Mr. Biense Visser	15	30
Ms. Jacqueline Rijsdijk	15	30
Mr. Rubino Di Girolamo	15	30
Total	45	90

Of that amount, there were no payments to former Supervisory Board members (previous year: KEUR 0).

Aside from their activities for *aap* Implantate AG, the members of the Supervisory Board are members of the following additional control committees:

Mr. Biense Visser	Gerlin N.V. Fund of Teslin Capital Management B.V., Maarsbergen (Netherlands), member of the Supervisory Board
Ms. Jacqueline Rijsdijk	Groenfonds of Triodos Bank N.V., Zeist (Netherlands), Chairwoman of the Supervisory Board
	Deloitte Netherlands, Amsterdam (Netherlands), member of the Supervisory Board
	Royal Cosun U.A., Breda (Netherlands), member of the Supervisory Board
	Airbus Defense and Space Netherlands B.V., Leiden (Netherlands), member of the Advisory Board
	Medical Center the Free University of Amsterdam, Amsterdam (Netherlands), member of the Supervisory Board
	Fair Share Fund of Triodos Bank N.V., Zeist (Netherlands), Chairwoman of the Supervisory Board
Mr. Rubino Di Girolamo	Metalor Dental Holding AG, Zug (Switzerland) and its subsidiaries (Z-Systems AG, Oensingen (Switzerland), New Dent AG, Oensingen (Switzerland), Metanova AG, Zug (Switzerland)), each member and President of the Administrative Board

The share ownership of the members of the Supervisory Board and Management Board is comprised as follows:

	Shares		Options	
	2018	2017	2018	2017
Supervisory Board				
Biense Visser	300,373	300,373	0	150,000
Ms. Jacqueline Rijsdijk	0	0	0	0
Rubino Di Girolamo	1,559,258	1,559,258	0	0
Management Board				
Bruke Seyoum Alemu	250,000	250,000	309,000	359,000
Marek Hahn	85,000	85,000	212,000	262,000

The fair values of the options as of the grant date are between EUR 1.00 and EUR 0.40 (previous year: EUR 1.00 and EUR 0.40).

3. Disclosures in Accordance with Section 160, para. 1 no. 8 AktG

In accordance with Section 160 para. 1 No. 8 AKtG, the following notifications received by *aap* in accordance with Section 21 para. 1 or para. 1a of the German Securities Trading Act (Wertpapierhandelsgesetz/WpHG) are shown below, along with their last respective level of participation reported. Persons have an obligation to make these notifications if their voting rights in *aap* Implantate AG directly or indirectly reach, exceed or fall below 3%, 5%, 10%, 15%, 20%, 25%, 30%, 50% or 75% through purchase, sale, or other means.

2017:

In accordance with Section 21 para. 1 Securities Trading Act (WpHG), Mr. Marcel Martinus Jacobus Johannes Boekhoorn notified us that his voting rights share in *aap* Implantate AG, Berlin, Germany, exceeded the threshold of 5% of the voting rights on July 20, 2017 due to the change of the number of total voting rights, and that on this day it amounted to 5.16% (which corresponds to 1,474,075 voting rights). 5.16% of these voting rights (equivalent to 1,474,075 voting rights) are to be allocated to Mr. Marcel Martinus Jacobus Johannes Boekhoorn in accordance with Section 22 Securities Trading Act (WpHG). Mr. Marcel Martinus Jacobus Johannes Boekhoorn is to be allocated voting rights from the following shareholders, each of which has a voting rights share in *aap* Implantate AG, Berlin, Germany, that amounts to 5% or more: Full chain of controlled undertakings starting with the ultimate controlling natural person or legal entity: Marcel Martinus Jacobus Johannes Boekhoorn (0.00%); Semper Fortuna N.V. (0.00%); Ramphastos Participaties Coöperatief U.A. (0.00%); Elocin B.V. (5.16%).

In accordance with Section 21 para. 1 Securities Trading Act (WpHG), Ratio Capital Management B.V., Amsterdam, Netherlands, notified us that its voting rights share in *aap* Implantate AG, Berlin, Germany, exceeded the threshold of 15% of the voting rights on July 20, 2017 due to the change of the number of total voting rights, and that on this day it amounted to 15.88% (which corresponds to 4,539,200 voting rights). 15.88% of these voting rights (equivalent to 4,539,200 voting rights) are to be

allocated to Ratio Capital Management B.V in accordance with Section 22 Securities Trading Act (WpHG). Ratio Capital Management B.V. is to be allocated voting rights from the following shareholders, each of which has a voting rights share in *aap* Implantate AG, Berlin, Germany, that amounts to 15% or more: Stichting Bewaarder Ratio Capital Partners. Other explanatory remarks: Collective investment undertaking. The shares with voting rights attached to them are owned by Stichting Bewaarder Ratio Capital Partners on behalf of the participants in the fund. Ratio Capital Management B.V. is the manager of the fund. Ratio Capital Management B.V. can exercise the voting rights of the issuer.

In accordance with Section 21 para. 1 Securities Trading Act (WpHG), Stichting Bewaarder Ratio Capital Partners, Amersfoort, Netherlands, notified us that its voting rights share in *aap* Implantate AG, Berlin, Germany, exceeded the threshold of 15% of the voting rights on July 20, 2017 due to the change of the number of total voting rights, and that on this day it amounted to 15.88% (which corresponds to 4,539,200 voting rights). 15.88% of these voting rights (equivalent to 4,539,200 voting rights) are directly held by Stichting Bewaarder Ratio Capital Partners in accordance with Section 21 Securities Trading Act (WpHG). Other explanatory remarks: Collective investment undertaking. The shares with voting rights attached to them are owned by Stichting Bewaarder Ratio Capital Partners on behalf of the participants in the fund. Ratio Capital Management B.V. is the manager of the fund. Ratio Capital Management B.V. can exercise the voting rights of the issuer.

In accordance with Section 21 para. 1 Securities Trading Act (WpHG), Mr. Jürgen Krebs notified us that his voting rights share in *aap* Implantate AG, Berlin, Germany, amounted to 12.49% (equivalent to 3,852,009 voting rights) on March 8, 2017 due to the acquisition/disposal of shares with voting rights. 9.54% of these voting rights (equivalent to 2,941,200 voting rights) are held directly by Mr. Jürgen Krebs in accordance with Section 21 Securities Trading Act (WpHG). 2.95% of these voting rights (equivalent to 910,809 voting rights) are to be allocated to Mr. Jürgen Krebs in accordance with Section 22 Securities Trading Act (WpHG). Mr. Jürgen Krebs is to be allocated voting rights from the following shareholders, each of which has a voting rights share in *aap* Implantate AG, Berlin, Germany, that amounts less than 3%: Full chain of controlled undertakings starting with the ultimate controlling natural person or legal entity: Jürgen Krebs (9.54%); Merval AG (2.95%).

2014:

In accordance with Section 21 para. 1 Securities Trading Act (WpHG), Taaleritehdas Plc., Helsinki, Finland, notified us on August 21, 2014 that its voting rights share in *aap* Implantate AG, Berlin, Germany, had exceeded the threshold of 5% of the voting rights on August 19, 2014, and on this day it amounted to 5.0048% (which corresponds to 1,535,000 voting rights). In accordance with Section 22, para. 1 no. 6 WpHG in combination with sentence 2 WpHG, 5.0048% of the voting rights (which corresponds to 1,535,000 voting rights) are attributable to the company. Attributed voting rights are held by the following shareholders, whose share of the voting rights in *aap* Implantate AG amounts to 3% or more: Taaleritehdas ArvoRein Equity Fund.

In accordance with Section 21 para. 1 Securities Trading Act (WpHG), Taaleritehdas Wealth Management Ltd., Helsinki, Finland, notified us on August 21, 2014 that its voting rights share in *aap* Implantate AG, Berlin, Germany, had exceeded the threshold of 5% of the voting rights on August 19, 2014, and on this day it amounted to 5.0048% (which corresponds to 1,535,000 voting rights). In accordance with Section 22, para. 1 no. 6 WpHG in combination with sentence 2 WpHG, 5.0048% of

the voting rights (which corresponds to 1,535,000 voting rights) are attributable to the company. Attributed voting rights are held by the following shareholders, whose share of the voting rights in *aap* Implantate AG amounts to 3% or more: Taaleritehdas ArvoRein Equity Fund.

In accordance with Section 21 para. 1 Securities Trading Act (WpHG), Taaleritehdas Fund Management Ltd., Helsinki, Finland, notified us on August 21, 2014 that its voting rights share in *aap* Implantate AG, Berlin, Germany, had exceeded the threshold of 5% of the voting rights on August 19, 2014, and that on this day it amounted to 5.0048% (which corresponds to 1,535,000 voting rights). In accordance with Section 22, para. 1 no. 6 WpHG, 5.0048% of the voting rights (which corresponds to 1,535,000 voting rights) are attributable to the company. Attributed voting rights are held by the following shareholders, whose share of the voting rights in *aap* Implantate AG amounts to 3% or more: Taaleritehdas ArvoRein Equity Fund.

In accordance with Section 21 para. 1 Securities Trading Act (WpHG), Taaleritehdas ArvoRein Equity Fund, Helsinki, Finland, notified us on August 21, 2014 that its voting rights share in *aap* Implantate AG, Berlin, Germany, had exceeded the threshold of 5% of the voting rights on August 19, 2014, and that on this day it amounted to 5.0048% (which corresponds to 1,535,000 voting rights).

In accordance with Section 21 para. 1 Securities Trading Act (WpHG), Mr. Jan Albert de Vries, Netherlands, notified us that his voting rights share in *aap* Implantate AG, Berlin, Germany, had fallen below the threshold of 15% of the voting rights on January 15, 2014, and that on this day it amounted to 14.72% (which corresponds to 4,514,706 voting rights). In accordance with Section 22, para. 1 no. 1 WpHG, 14.72 % of the voting rights (which corresponds to 4,514,706 voting rights) are attributable to Mr. de Vries from Noes Beheer B.V.

In accordance with Section 21 para. 1 Securities Trading Act (WpHG), Noes Beheer B.V., Nijmegen, Netherlands, notified us that its voting rights share in *aap* Implantate AG, Berlin, Germany, had fallen below the threshold of 15% of the voting rights on January 15, 2014, and that on this day it amounted to 14.72% (which corresponds to 4,514,706 voting rights).

2009:

Mr. Rubino di Girolamo, Switzerland, had fallen below the thresholds of 30%, 25%, 20%, 15% and 10% of the voting rights on 13 January 2009. On January 13, 2009, Mr. di Girolamo held 1,530,000 shares (5.75%), of which 1,530,000 shares (5.75%) were attributable to him in accordance with Section 22, para. 1 sentence 1 no. 1 WpHG. via Deepblue Holding AG.

Deepblue Holding AG, Zug, Switzerland, had fallen below the thresholds of 30%, 25%, 20%, 15% and 10% of the voting rights on 13 January 2009. On 13 January 2009, Deepblue Holding AG held 1,530,000 shares (5.75%).

2008:

In accordance with Section 21, para. 1 Securities Trading Act (WpHG), DZ Bank AG, Frankfurt am Main, Germany, notified us on September 9, 2008 that its voting rights share in *aap* Implantate AG, Berlin, Germany, ISIN: DE0005066609, security identification number (WKN): 506660 had fallen below the threshold of 5% of the voting rights on September 5, 2008, and that on this day it amounted to 4.8% (which corresponds to 1,267,357 voting rights).

4. Auditing fees

The auditor's fees, which were recorded as an expense in the financial year, totaled:

a) for the financial statements (annual and consolidated financial statements as well as other audit services for the financial statements) KEUR 97 (previous year: KEUR 88)

b) for other confirmation services (confirmation of statements to fulfill granting requirements) KEUR 4 (previous year: KEUR 0)

c) for other services (other management consulting) KEUR 4 (previous year: KEUR 3)

5. Events after the balance sheet date

On 17 April 2019 *aap* announced the implementation of a capital increase with subscription rights as part of a package of measures to strengthen its financial base. The package of measures contains besides the capital increase with subscription rights two asset-based financings. From the capital increase *aap* will obtain at least EUR 2.3 million on the basis of commitments it has already received from its shareholders. This corresponds to approx. 46% of the capital increase. Accompanying to the implementation of the capital increase, the Company intends to enter into sale-and-rent-back as well as factoring agreements, which shall lead to an inflow of further financial funds amounting to approx. EUR 1.7 million in financial year 2019. Thereby the company would have a total of at least around EUR 4.0 million available from the financing measures in the coming months. In the course of the capital increase with subscription rights *aap*'s share capital shall be increased by up to EUR 4,784,485.00 by issuing up to 4,784,485 new shares from the current amount of EUR 28,706,910.00 to up to EUR 33,491,395.00 by partially using the authorized capital. The new shares shall be offered to the shareholders of the company for subscription at a subscription price of EUR 1.04 per new share in an indirect subscription offer. The shareholders can receive 1 new share per 6 held *aap* shares within a subscription period, which started on 25 April 2019 (00.00 hours CET) and which is expected to end on 9 May 2019 (24.00 hours CET).

On 15 April 2019 *aap* announced that the Supervisory Board of the Company and the Chairman of the Management Board / CEO, Bruke Seyoum Alemu, agreed on an early termination of his term of office as of 30 April 2019. Bruke Seyoum Alemu thereupon resigned his mandate as Member and Chairman of the Management Board / CEO of *aap* by mutual agreement with the Supervisory Board with effect as of 30 April 2019 and will retire from the Management Board at this time. Mr. Alemu will support the Company on a consulting basis after his retirement from the Management Board. The Supervisory Board appointed Mr. Rubino Di Girolamo, currently Member of the Supervisory Board at *aap*, as successor and new Chairman of the Management Board / CEO with effect as of 1 May 2019. In addition, the Management Board and Supervisory Board of *aap* resolved to propose Ms. Dr. Natalie Krebs to the competent commercial register for a judicial appointment as new Member of the Supervisory Board and successor of Mr. Di Girolamo for the period until the end of the Annual General Meeting of the company on 21 June 2019.

6. Declaration on the German Corporate Governance Code

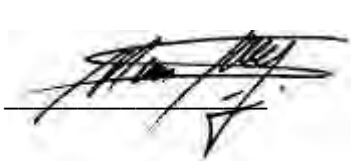
aap Implantate AG has submitted the declaration of conformity to the German Corporate Governance Code as required by Section 161 AktG and has made it available to shareholders on our website (https://www.aap.de/investor-relations/corporate-governance/declaration-of-conformity).

7. Publication

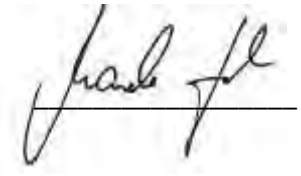
The Management Board of aap Implantate AG established these consolidated financial statements on April 30, 2019 and forwarded them to the Supervisory Board and for publication.

Berlin, April 30, 2019

The Management Board



Bruke Seyoum Alemu
Chairman of the Management Board/CEO



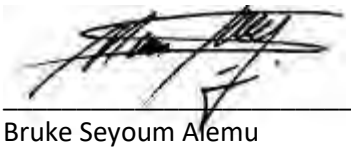
Marek Hahn
Member of the Management Board/CFO

D. Responsibility Statement by the Legal Representatives

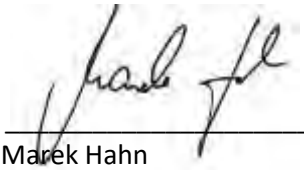
To the best of our knowledge and in accordance with the applicable financial reporting principles, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group, and the consolidated management report – which has been consolidated with the management report of *aap* Implantate AG – includes a fair review of the development and performance of the Group's business position, together with a description of the principal opportunities and risk associated with the Group's expected development.

Berlin, April 30, 2019

The Management Board



Bruke Seyoum Alemu
Chairman of the Management Board / CEO



Marek Hahn
Member of the Management Board / CFO

E. Independent Auditor's Report

To *aap* Implantate AG, Berlin

Report on the Audit of the Consolidated Financial Statements and of the Combined Management Report for the Annual and Consolidated Financial Statements

Opinions

We have audited the consolidated financial statements of *aap* Implantate AG, Berlin, and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at December 31, 2018, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the financial year from January 1, 2018 to December 31, 2018, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the combined management report for the annual and consolidated financial statements of *aap* Implantate AG for the financial year from January 1, 2018 to December 31, 2018. In accordance with German legal requirements, we have not audited the content of the group corporate governance declaration referred to in Section XI. of the combined management report for the annual and consolidated financial statements.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e (1) HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at December 31, 2018, and of its financial performance for the financial year from January 1, 2018 to December 31, 2018, and

- the accompanying combined management report for the annual and consolidated financial statements as a whole provides an appropriate view of the Group's position. In all material respects, this combined management report for the annual and consolidated financial statements is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the combined management report for the annual and consolidated financial statements does not cover the content of the group corporate governance declaration referred to in Section XI. of the combined management for the annual and consolidated financial statements.

Pursuant to Section 322 (3) sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the combined management report for the annual and consolidated financial statements.

Basis for the Opinions

We conducted our audit of the consolidated financial statements and of the combined management report for the annual and consolidated financial statements in accordance with Section 317 HGB and the EU Audit Regulation (No. 537/2014, referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided any non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the combined management report for the annual and consolidated financial statements.

Material uncertainty regarding business activities being continued

We refer to the disclosures on liquidity risks in Section F. "Reporting on financial instruments" in Subsection 3. "Managing financial risks" of the consolidated financial statements and in Section VI. "Report on Risks and Opportunities" in Subsection 3. "Presentation of significant risks and opportunities", A) "Risks", "Financial risks" of the combined management report for the annual and consolidated financial statements. Therein the legal representatives explain that various measures for strengthening the financial basis had been necessary. The Management Board assumes that should the company not successfully acquire sufficient cash inflows from the measures implemented for strengthening the financial basis (capital injection, concluding factoring and sale and rent-back agreements) and achieve the sales and earnings targets budgeted, the company may have to take considerable operational and strategic corrective measures that could adversely affect the further development of the company. In the worst case the company may not be able to continue in a successful way owing to the consequences of their business activities and the ability of the company to continue to exist may be in jeopardy.

This disclosure points to a material uncertainty casting significant doubt on the company's ability to continue its business activities and posing a going concern risk for the company as defined in Section 322 (2) sentence 3 HGB. Our audit opinions have not been modified with regard to this matter.

Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from January 1, 2018 to December 31, 2018. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, we do not provide a separate opinion on these matters.

Assessment of the going concern premise by the Management Board

Related information in the financial statements and the combined management report for the annual and consolidated financial statements

The existing risk of the company's ability to continue as a going concern owing to liquidity risks is presented in Section F. "Reporting on financial instruments" in Subsection 3. "Managing financial risks" of the consolidated financial statements and in the "Report on Risks and Opportunities" in the Subsection "Financial Risks" of the combined management report for the annual and consolidated financial statements.

Circumstances and risk for the audit

The liquidity planning for the 2019 financial year and for 2020 and 2021 show that quarterly liquidity needs to the end of the financial year are covered. During the preparation of the consolidated financial statements it was thus assumed that company would continue as a going concern. This presupposes that the measures for stabilizing the financial position, which have already been initiated, continue as scheduled and that the sales and earnings targets are achieved in 2019 as well as in 2020 and 2021.

Audit approach and findings

We traced the earnings and liquidity budgeting for the 2019 financial year and for 2020 and 2021 prepared by the Management Board and the plausibility of the underlying assumptions made therein. In so doing we considered to what extent the company had been able to achieve the values budgeted in the last years. After having conducted intensive discussions on the budget and the underlying assumptions with the Management Board, we concluded that the budget was properly calculated and plausible. Accordingly, the company's liquidity planning on a quarterly basis for 2019 and for 2020 and 2021 did not show any underfunding. We are of the opinion that the assumptions made concerning cash inflows from the financing measures initiated are realistic and reasonably probable in terms of amount. The uncertainties underlying the sales and earnings budgeted were taken into account in an adjusted scenario calculation. On the whole we have come to the conclusion that the requirements for the company to be able continue as a going concern depend on implementing financing measures and meeting the sales and earnings targets budgeted. In this regard we refer to our statements made in the Section "Material uncertainty regarding business activities being continued" in this report.

Measurement of development costs

Related information in the financial statements and the combined management report for the annual and consolidated financial statements

The notes to the consolidated financial statements, Section B. "Accounting policies" under "Significant accounting policies" in the Subsection "Intangible assets" outline the requirements for capitalizing development costs, the initial measurement and subsequent measurement. Section C. is entered into "Key judgments, estimates and assumptions" in connection with the initial capitalization and the impairment tests carried out each year. The additions to the development costs capitalized and other information on impairment testing are presented in Section E. 1. "Development costs". The "Risk and opportunities report" of the combined management report, "Presentation of significant risks" in the Section "Capitalization of development costs" provides further explanations and a risk assessment

made by the legal representatives with respect to the probability of undesirable developments or project cancellations occurring.

Circumstances and risk for the audit

The carrying amounts of development costs capitalized amounted to € 13,069 thousand in the consolidated financial statements as at the reporting date, i.e. 31 % of the statement of financial position total or 37 % of equity capital. Of the development projects, the two largest projects were in the approval and development stage as of December 31, 2018. The expenses for research and development in the financial year 2018 amounted to € 2,137 thousand, of which € 1,891 thousand have been capitalized.

Risks may arise for the company if the recoverable amount from the projects is significantly lower than their carrying amounts. This may be due to unscheduled higher development costs, lower than expected returns or other undesirable developments such as project cancellations.

The development costs capitalized are subject to an annual impairment test by the company in order to determine any potential need for write-offs. The result of these measurements largely depends on how the legal representatives assess future cash inflows and derive the discount rates used at the time.

In view of the underlying complexity of the measurement, as well as the discretionary judgment used in the measurement, the measurement of the development costs capitalized in the context of our audit is a key audit matter.

Audit approach and findings

Within the scope of our audit, we analyzed the process implemented and the accounting and measurement requirements for determining the fair values of development costs with regard to a potential risk of error. We acknowledged the approach of the company when to capitalizing interest rates and in deriving future returns for their compliance with commercial professional law. We have analyzed the underlying planning. We have retraced the significant assumptions regarding the exercising of different options and the expected cash inflows from development projects by discussing these in detail with the legal representatives of *aap* and, if available, by comparing with existing market valuations. On this basis, we have evaluated their appropriateness.

The appropriateness of the other key measurement assumptions, such as the discount interest rate, was based on an analysis of market indicators. We have analyzed the parameters used to determine the discount interest rates used with regard to their appropriate derivation and retraced their calculation, in accordance with the current requirements of commercial law.

By using sensitivity studies, we assessed impairment risks in the event of changes in key measurement assumptions. Furthermore, we have retraced the mathematical accuracy of the measurement models.

The methods and measurement assumptions applied by the legal representatives are, considering the information available, in our view appropriate for properly determining and accounting for development costs.

Revenue recognition and deferred revenue

Related information in the financial statements and the combined management report for the annual and consolidated financial statements

The notes to the consolidated financial statements, Section B. “Accounting policies” under “Significant accounting policies” in the Subsection “Revenue recognition” provide information on revenue recognition and deferred revenue in the consolidated financial statements. The structure of the customers, the sales markets and the sales strategy are described in the combined management report in Section I. 6. “Customers and sales markets”.

Circumstances and risk for the audit

In the financial year 2018, *aap* generated revenue of € 10,781 thousand. Of this amount, € 8,007 thousand originated from abroad, which corresponds to a 74 % portion of the revenue. The legal representatives of *aap* issued accounting instructions for revenue recognition and implemented processes for revenue recognition. As a result of different contractual agreements, potential restrictions due to the required approvals and uncertainties regarding the actual payment and delivery in connection with “bill and hold” contracts, we judged revenue recognition and deferred revenue as being complex as at the reporting date, therefore there is an increased risk here that the accounting may not be correct.

Audit approach and findings

As part of our audit, we acknowledged the accounting and measurement requirements for revenue recognition in the consolidated financial statements. In addition to analytical audit procedures, we assessed the control environment and the controls set up for recognizing revenue on an accrual basis. In random samples, we checked the existence of trade receivables and incoming payments. In addition, we also retraced revenue recognition on the basis of contractual agreements on a sample basis. We checked sales transactions shortly before and after the reporting date with regard to random checks for the accuracy of the accruals. In addition, we obtained balance confirmations for a selection of customers.

Our audit procedures did not indicate any significant objections with respect to the recognition of accrued and deferred revenue.

Inventory measurement

Related information in the financial statements and the combined management report for the annual and consolidated financial statements

The notes to the consolidated financial statements as at December 31, 2018, Section B. “Accounting policies” under “Significant accounting policies” in the Subsection “Inventories” describe the accounting policies and measurement methods used for inventories. The development of impairments is presented in Section E. “Explanations on the consolidated statement of financial position” in Subsection “Inventories”. For the rate of stock turnover as a performance indicator, see Section V. 5. “Financial and non-financial performance indicators” and the Management Agenda 2018 and 2019 in the combined management report for the annual and consolidated financial statements.

Circumstances and risk for the audit

As at the reporting date, the company reported inventories amounting to € 9,617 thousand. This corresponds to 23 % of the statement of financial position total. Owing to the high complexity of the inventory measurement process, there is an increased risk of error. In addition, due to the high level of inventories, there are risks with regard to the future usability of inventories and the appropriateness of the value adjustments made.

Audit approach and findings

As part of our audit, we recorded the inventory measurement processes established by the company, reviewed internal controls for measuring inventory levels, and assessed controls with regard to their effectiveness. We traced how the production cost rates were derived and assessed the appropriateness of the range and service deductions made.

The methods and measurement assumptions applied by the legal representatives are, considering the information available, in our view appropriate for properly measuring inventories.

Other Information

The executive directors are responsible for the other information. The other information comprises:

- the group corporate governance declaration statements pursuant to Sections 289f and 315d HGB referred to in Section XI. of the combined management report for the annual and consolidated financial statements,
- the confirmation pursuant to Section 297 (2) sentence 4 HGB regarding the consolidated financial statements and the confirmation pursuant to Section 315 (1) sentence 5 HGB regarding the combined management report for the annual and consolidated financial statements,
- the corporate governance report pursuant to No. 3.10 of the German Corporate Governance Code, and
- the remaining parts of the annual report, with the exception of the audited consolidated financial statements and combined management report for the annual and consolidated financial statements and our auditor's report.

The Supervisory Board is responsible for the other information below:

- the report of the Supervisory Board in the Section "Company information" of the 2018 annual report

Our opinions on the consolidated financial statements and on the combined management report for the annual and consolidated financial statements do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the for the annual and consolidated financial statements management report or our knowledge obtained in the audit, or

- otherwise appears to be materially misstated.

Responsibilities of the Executive Directors and the Supervisory Board for the Consolidated Financial Statements and the Combined Management Report for the Annual and Consolidated Financial Statements

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the combined management report for the annual and consolidated financial statements that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a combined management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the combined management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the combined management report for the annual and consolidated financial statements.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined Management Report for the Annual and Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the combined management report for the annual and consolidated financial statements as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the

consolidated financial statements and on the combined management report for the annual and consolidated financial statements.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this combined management report for the annual and consolidated financial statements.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the combined management report for the annual and consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the combined management report for the annual and consolidated financial statements 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 these systems.

- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.

- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the combined management report for the annual and consolidated financial statements or, if such disclosures are inadequate, to modify our respective opinions. 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 be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the combined management report for the annual and consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our opinions.

- Evaluate the consistency of the combined management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.

- Perform audit procedures on the prospective information presented by the executive directors in the combined management report for the annual and consolidated financial statements. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

OTHER LEGAL AND REGULATORY REQUIREMENTS

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as the group auditor by the annual general meeting on June 22, 2018. We were engaged by the supervisory board on November 12, 2018. We have been the group auditor of *aap* Implantate AG without interruption since the 1999 financial year.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the supervisory board pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

GERMAN PUBLIC AUDITOR RESPONSIBLE FOR THE ENGAGEMENT

The German Public Auditor responsible for the engagement is Matthias Rattay.

Berlin, April 30, 2019

Mazars GmbH & Co. KG
Wirtschaftsprüfungsgesellschaft
Steuerberatungsgesellschaft

Udo Heckeler	Matthias Rattay
Wirtschaftsprüfer	Wirtschaftsprüfer
[German Public Auditor]	[German Public Auditor]