ATON GmbH, Munich

GROUP MANAGEMENT REPORT FOR THE FINANCIAL YEAR 2018

(Translation – the German text is authoritative)

Contents

I. GROUP PROFILE

1. Business segments

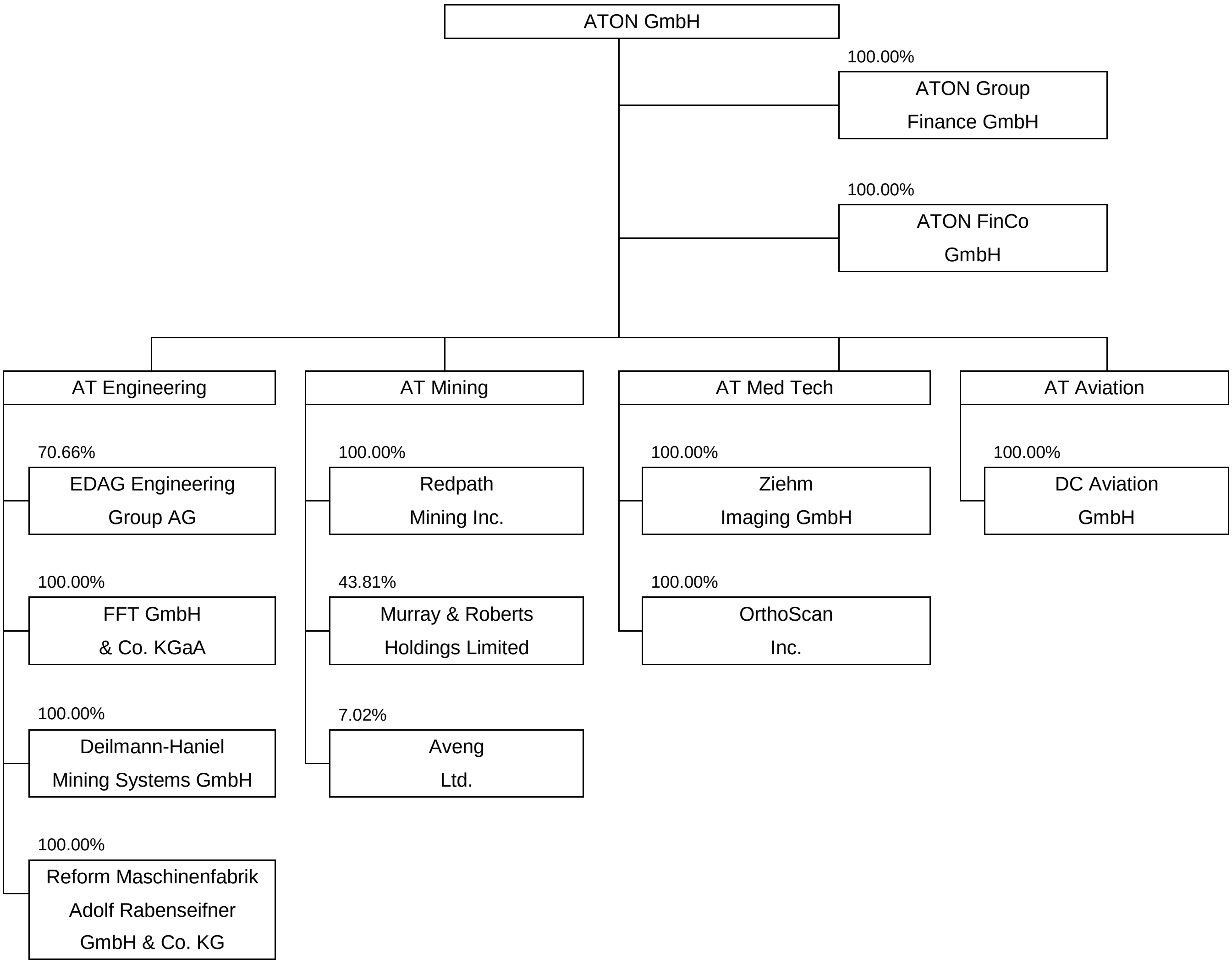
The ATON Group is an association of internationally operating companies in the business segments AT Engineering, AT Mining, AT Med Tech and AT Aviation.

The ATON Group comprises the ATON GmbH, a corporation established under German law, and the following investments:

	31.12.2018	31.12.2017
Subsidiaries	125	125
thereof consolidated	113	114
Joint Ventures	19	13
thereof consolidated using the equity method	19	12
Investments in associates and investment measured at fair value	3	2
thereof consolidated using the equity method	1	1
Total	**147**	**140**
thereof consolidated	**133**	**127**

In the ATON Group the development of the core competencies in the individual business segments is still in focus. Strategic investments, merging similar activities and using synergies as well as selling off peripheral activities shall enhance the companies’ competitive advantage, optimise the use of existing resources and thus further increase added value.

The organisational structure of the ATON Group with the operating units allocated to the relevant business segments is as follows as of 31 December 2018:



The services of the **segment AT Engineering** cover in particular areas of engineering and plant construction for the automotive and mining industry, along with other sectors of the mobility industry, as well as manufacturing of specialised machines.

As a globally leading independent engineering partner to the international mobility industry, the **EDAG** Group develops ready-for-production solutions for the automotive future. The industry focus is on the automotive and commercial vehicle industry. The service portfolio includes the development of vehicles, derivatives, modules, and production plants. The EDAG Group is organised in the three lines of business Vehicle Engineering, Production Solutions and Electric/Electronics. Vehicle Engineering offers global engineering services and know-how along the entire automotive development process focusing on manufacturers and suppliers of the automotive industry. The service portfolio covers the key aspects of vehicle development and ranges from styling, form-finding and modelling through package, body and interior/exterior design development to the entire functional integration of systems into the vehicle. Production Solutions deals with the development of production facilities and factory concepts. The focus hereby is on factory, process and plant development as well as automation engineering and product cost management. Electric/Electronics covers the development and integration of electric/electronics systems in vehicles for vehicle manufacturers and system suppliers. The fields of activities include complete vehicle electric/electronics, comfort and body electronics, driver assistance and safety systems, infotainment and telematics systems as well as electrics/vehicle electrical systems. On 2 December 2015 the EDAG Group went public and was since then accounted for as an associated company. Since 2 July 2017, the EDAG Group is controlled by ATON in accordance with IFRS 10 and thus fully consolidated since the second half of 2017.

The **FFT** Group is a global provider of automated and flexible production systems. As a turn-key partner for manufacturers and TIER1-suppliers of the automotive industry as well as for other non-automotive sectors, the FFT Group assumes the responsibility for the implementation of complete production plants (turn-key body production and assembly lines). Process reliability, flexibility and adaptability of production facilities are in the focus of the development and implementation process of the FFT Group. By developing and implementing innovative production technologies FFT meets the requirements set by modern production technology. The integration of modern 3D technologies and digital factory tools as well as the systematic use and virtual start-up of these elements are the basis of flexible plant concepts. On 18 June 2018, a share purchase agreement was signed regarding the sale of the FFT Group. The shares of the company will be transferred to the buyer upon closing, which is expected to take place in May 2019.

Deilmann-Haniel Mining Systems is a plant engineer and a specialist manufacturer of machinery for the realisation and preparation of subsurface coal mines, as well as special applications for all subsurface mining operations. The activities of the company are currently being shut down as scheduled.

REFORM assembles with its specialists mechanical and electrical components, subassemblies, complete machines and complete production plants according to the design and quality specifications of the manufacturers. In addition, it manufactures turnkey automated manufacturing equipment. The former subsidiary REFORM Grinding Technology GmbH, Fulda, was sold effective on 30 January 2018.

The **segment AT Mining** offers mining and shaft-sinking services and products worldwide.

The **Redpath** Group is a global mining service provider. The Group's core competencies include contract mining, shaft-sinking and equipment, maintenance and renovation, as well as the development, construction and management of subsurface mines and installations.

The **Murray & Roberts** Group is a global company for engineering, construction and underground mining services. The range of services covers the areas of oil & gas, underground mining and power & water. The investment is accounted for using the equity method.

The **segment AT Med Tech** develops solutions for the healthcare market in the fields of surgery and diagnostics, specialising in X-ray diagnostics, basic medical diagnostics and minimally invasive surgery, as well as products for the pharmaceuticals industry and hospitals.

Haema is the nationwide largest private blood donor service operating in the Federal Republic of Germany. In the German federal states of Bavaria, Berlin, Brandenburg, Thuringia, Mecklenburg-Western Pomerania, North Rhine-Westphalia, Saxony, Saxony-Anhalt and Schleswig-Holstein, Haema operates 35 modern blood donation centres. As with all blood donor services active in Germany blood and plasma donation are voluntary and unpaid. On request, the donors will be given an appropriate lump sum compensation for their blood or plasma donation under statutory provisions. Blood and plasma donations are processed into finished medical products or transferred to the plasma processing industry for handling. All blood products are subject to multiple testing in highly efficient, modern laboratories to ensure compliance with the highest quality and safety standards applicable to the produced finished medical products. At the same time Haema is monitored on a regular basis by independent institutions. Haema was sold effective on 4 June 2018.

The **Ziehm** Group is specialised on the development, production and global marketing of mobile X-ray imaging systems solutions known as C-arms. The use of modern flat detectors reduces distortions created by standard image enhancers. These systems are primarily used in surgical and emergency care settings. The company also develops specialised equipment for endoscopic procedures. Ziehm is considered an expert and technology leader in the market of C-arms. With the Ziehm Vision FD Vario 3D and the Ziehm Vision RFD 3D, Ziehm provides mobile C-arms with state-of-the-art CMOS technology on the market, combining 2D and 3D capabilities for improved intraoperative control. The new product Ziehm Solo FD is the first choice for small operating rooms and combines a compact and versatile C-arm, a full-size monitor and an intuitive touchscreen user interface in one device.

OrthoScan is also leading in the market for so-called mini C-arms used for orthopaedic extremity (hand and foot) imaging. OrthoScan's mini C-arms offer orthopaedic, casualty and hand and foot surgeons the solution they require for a high-quality, X-ray imager with small dimensions. Furthermore, OrthoScan offers the product Mobile DI. The Mobile DI is an even more compact portable, low-dosage X-ray imager, which can be used when rapid and effortless diagnostics of extremities are required. It is suitable for use in orthopaedic practices and athletic sport teams, among other applications. Since the financial year 2015 the integration of OrthoScan into the Ziehm Group is further strengthened. As part of this integration, OrthoScan now also distributes the product Ziehm Solo FD.

The **segment AT Aviation** comprises business aviation and charter flights.

DC Aviation, as operator and charterer including aircraft technology, concentrates on the premium segment of private jets, particularly for medium and long-haul flights. As of 31 December 2018, the DC Aviation Group has 30 aircrafts under contract as an operator. Since 2013, the international presence has been strengthened by a 49.0 % joint venture in Dubai (DC Aviation Al Futtaim LLC) with local infrastructure at Dubai World Central airport. The second business field, which is steadily growing in importance, is the maintenance, repair and technical modification of the business jets operated by DC Aviation as well as the maintenance of third-party aircraft that are not operated in the ownership of DC Aviation.

ATON Group Finance GmbH is a 100 % subsidiary of ATON GmbH, which was founded on 4 October 2013 in Going am Wilden Kaiser, Austria. The main subject of the company is intercompany financing. In November 2013, ATON Group Finance GmbH issued a bond of EUR 200.0 million in the Prime Standard at the German Stock Exchange in Frankfurt am Main. Guarantor for this bond was ATON GmbH. The bond was repaid on 8 November 2018.

ATON FinCo GmbH, with its registered office in Going am Wilden Kaiser, Austria, is held by ATON Austria Holding GmbH, Going am Wilden Kaiser, Austria, and acts as a financing company within the ATON Group.

2. Management

ATON GmbH is a management holding company with extensive competencies regarding strategy and financing. The management of the individual subsidiaries assumes direct operative responsibility and acts within the scope agreed with the management board of ATON GmbH in order to meet the financial and strategic objectives. There is a constant exchange via a monthly reporting between the managing directors of the subsidiaries and the holding company.

3. Research and development

Several companies of the Group operate in technological fields that are constantly evolving. These companies are primarily the EDAG Group, the FFT Group, the Ziehm Group, OrthoScan and the Redpath Group. In order to differentiate from competitors and to keep up with the latest technological developments, these companies individually operate research and development departments. Permanent development and enhancement of the product portfolio is of great strategic importance in the industries of the companies. Research and development expenses recognised in the income statement are at EUR 0.6 million (previous year: EUR 1.0 million), whereby the decline is due to the sale of W.O.M. Group in 2017. In addition, capitalised development costs of EUR 3.7 million (previous year: EUR 2.8 million) emphasize the activities for product development and product enhancement.

II. MACROECONOMIC DEVELOPMENT

The positive economic development of the global economy continued in 2018, albeit a little less dynamically than in 2017. Growth slowed mainly in the first quarter of 2018, but regained momentum thereafter. Especially in the United States, growth increased significantly. Especially, the tax reform is likely to have had a noticeable share. In China, a significant slowdown in growth has not yet occurred, contrary to some fears. The Euro area, on the other hand, was unable to maintain the high growth rate of the previous year, falling behind the United States in terms of growth. Growth within the Euro area is quite heterogeneous. In Japan, the economic momentum was also more restrained. The United Kingdom economy was growing weak against the background of the Brexit negotiations.

Recently, individual emerging markets were a source of concern. The Argentine Peso and the Turkish Lira in particular came under devaluation pressure in 2018. High current account deficits, substantial foreign currency debt and doubts about the political and institutional environment put these countries in the focus of the financial markets. So far, there are no significant contagion effects on other countries. It should play a role that those problems are primarily home-made and that many emerging countries hold larger foreign exchange reserves than in past crises.

The following overview presents the development of the gross domestic product (GDP) in the individual economic regions:

in %	**2018 ***	**2017**	**2016**	**2015**	**2014**
World	3.2	3.3	2.6	3.0	2.9
Europe	2.0	2.7	2.0	2.4	2.0
Germany	1.5	2.5	2.2	1.5	2.2
North America	2.8	2.3	1.5	2.7	2.5
South America	1.5	1.9	- 0.2	0.4	1.4
Asia/Pacific	4.9	5.1	4.7	4.9	4.8
China	6.6	6.9	6.7	6.9	7.3
Middle East	2.4	1.4	4.0	2.4	2.7
Africa	3.2	3.4	1.9	3.1	2.7

Source: Global Insight World Overview as of 15 January 2019.
* Forecast.

Growth in the global economy slowed somewhat in 2018, mainly due to the weaker performance in Europe. The growth rate fell year-on-year from 3.3 % to 3.2 %. Against this trend, the growth rate in North America rose to 2.8 % (previous year: 2.3 %). The fastest growth rates were in the Asia / Pacific region, which grew by 4.9 % (previous year: 5.1 %). There, the Chinese economy expanded by 6.6 % (previous year: 6.9 %). Economic growth in Europe came to 2.0 % (previous year: 2.7 %). The German economy expanded by 1.5 % (previous year: 2.5 %), which is less than for its European neighbours.

The oil price is one of the most important values in the commodity markets. In 2018, the average price was at USD 71.06 / barrel with a high volatility, or around 31.0 % higher than in previous year. As of 31 December 2018, a barrel of Brent crude cost USD 54.63 (year end 2017: USD 66.87).

The inflation rate in the Euro zone is at 1.7 % in the financial year 2018 (previous year: 1.5 %). The main refinancing interest rate remained unchanged at 0.0 % compared to the previous year. The marginal lending facility and the interest rate of the deposit facility rate are unchanged at 0.25 % and -0.40 %, respectively.

Compared to the average exchange rate level of the previous year, the Euro increased in 2018 compared to the most important currencies. The average exchange rate against the US Dollar was 4.5 % higher than in the previous year. On average, the Euro appreciated by 0.9 % against the British Pound. The Euro also appreciated by 2.4 %, 3.9 % and 2.9 % against the Chinese Renminbi, the Swiss Franc and the Japanese Yen.

III. DEVELOPMENT OF THE BUSINESS SEGMENTS

The following figures indicate the gross revenue and results attributable to the particular segments.

1. AT Engineering

The majority of the gross revenue of this business segment is generated by the EDAG Group and the FFT Group. The customers of both groups are mainly from the automotive sector. Insofar, the development of the automotive industry has an influence on this segment. However, manufacturers need to work on long term development projects for new vehicles and the subsequent capital expenditures on new assembly lines for new vehicle models, which require a longer period in advance, also in economically weak periods.

According to a recent market survey by IHS Markit, global automobile production has declined by -1.0 % in 2018 (from 95.2 to 94.2 million units produced). The decline was most pronounced in China at -3.8 %, as slower economic growth had an impact on the automotive industry especially in the second half of the year. However, this decline was also evident in Europe (-1.2 %), North America (-0.6 %), Japan / South Korea (-0.5 %) and the Middle East / Africa region (-2.2 %). In contrast, production volumes in South Asia (+ 5.7 %) and South America (+ 3.1 %) increased.

The gross revenue and the EBIT of this business segment developed as follows compared to the previous year's period in line with our expectations:

in EUR '000	2018	2017	Change
Gross revenue	1,547,171	1,218,954	328,217
EBITDA	125,265	68,188	57,077
EBITDA margin in %	8.1	5.6	2.5
EBIT	59,789	31,862	27,927
EBIT margin in %	3.9	2.6	1.3

Gross revenue overall increased by EUR 328.2 million compared to the previous period. EBIT also improved by EUR 27.9 million. It should be noted, that the EDAG Group is fully consolidated again since the second half of 2017 and is therefore included with a full 12 months in the financial year 2018.

The following comments on the individual companies of the segment are based on unconsolidated figures.

The EDAG Group, which is fully consolidated again since July 2017, generated a gross revenue of EUR 792.8 million (previous year: EUR 365.6 million). Even taking into account the twelve month inclusion in comparison to the six months in previous year, the gross revenue could be significantly increased, which is mainly due to business acquisitions in 2017 an increaased foreign business. EBIT stands at EUR 42.2 million (previous year: EUR 15.9 million). This is offset by amortisation effects for hidden reserves from the purchase price allocation at group level amounting to EUR 24.5 million (previous year: EUR 12.2 million). As of 31 December 2018, the order backlog amounts to EUR 298.5 million (previous year: EUR 340.0 million). However, the order backlog does not include potential requests from framework contracts or from series orders.

In line with budget, the FFT Group recorded a decline in gross revenue by EUR 73.0 million to EUR 783.1 million. At the same time, the EBIT in the reporting period fell by EUR 4.9 million to EUR 50.8 million (previous period: EUR 55.7 million), although EBIT margin remained stable. The order backlog as of 31 December 2018 amounts to EUR 462.3 million (previous year: EUR 519.4 million).

REFORM's gross revenue is at EUR 12.7 million and therefore below the level of the previous year's period (EUR 17.6 million), mainly due to the sale of Reform Grinding Technology GmbH in January 2018. At EUR -1.2 million, the EBIT is still negative, but improved compared to EUR -2.9 million in previous year. However, as a result of the impairment test, additional write-downs on net assets amounting to EUR 6.2 million had to be recognised at Group level.

The gross revenue of Deilmann-Haniel Mining Systems declined from EUR 8.4 million to EUR 1.4 million due to the scheduled shutdown of its business activities. The EBIT, which was impacted by unscheduled depreciation of land and buildings amounting to EUR 3.8 million in 2018, improved from EUR -23.1 million in previous year to EUR -1.3 million in 2018.

2. AT Mining

The gross revenue of this segment is almost exclusively generated by the Redpath Group. In addition, the Murray & Roberts Group, as associated company, contributes to the results of the segment. The business development of the segment depends on the development of commodity prices.

On the basis of the Bloomberg Commodity Index, commodity prices are down about 13 % during financial year 2018. The prices are therefore still well below the level of 2011.

Among industrial metals, lead showed the largest price decline at 19 %. Prices for zinc, copper and aluminum also fell by 14 %, 6 % and 2 % respectively (based on one-month futures contracts each).

The prices development of precious metals differed. While prices for platinum and silver fell by 11 % and 7 % respectively, prices for palladium rose by 18 % and the price of gold remained nearly unchanged (based on one-month futures contracts each).

The potash price did not change during the financial year 2018.

Mining companies, among others, are reacting to the continued low level of commodity prices with the postponement and cancellation of projects.

The gross revenue and the EBIT of this segment are above expectations and developed as follows compared to the previous year's period:

in EUR '000	2018	2017	Change
Gross revenue	638,628	568,540	70,088
EBITDA	78,735	65,123	13,612
EBITDA margin in %	12.3	11.5	0.9
EBIT	42,774	33,860	8,914
EBIT margin in %	6.7	6.0	0.7

The following comments on the individual companies of the segment are based on unconsolidated figures.

The changes in the segment AT Mining are largely determined by the development of the Redpath Group, since the Murray & Roberts Group as associate is accounted for using the equity method and thus only has an effect on the financial result.

The Redpath Group was able to increase its gross revenue by EUR 70.5 million or 12.4 % to EUR 639.3 million compared to previous year. The company generated an EBIT of EUR 42.9 million (previous year: EUR 34.1 million) and an EBIT margin of 6.7 % (previous year: 6.0 %). The order backlog as of 31 December 2018 amounts to EUR 1,086.6 million (previous year: EUR 1,352.8 million).

3. AT Med Tech

While health expenditure worldwide increased by an average of 2.9 % p.a. between 2013 and 2017, average growth of 5.4 % p.a. is expected for the years 2018 to 2022, which is thus higher than the increase of gross domestic product (annual growth in 2017 - 2022: just under 5.2 % p.a.). Expenditure would thus amount to about USD 10.1 trillion in 2022.

The size of the global medical technology market in 2017 was approximately USD 405.0 billion. By the year 2024, the value is expected to grow to about USD 594.5 billion (an annual average growth of 5.6 %). "Imaging Technologies" is the area in which the sub segment "mobile C-arms" is located. This sub segment, where ATON's subsidiaries Ziehm and OrthoScan are operating, is the third largest market segment of the medical technology market according to "In-Vitro Diagnostics" and "Cardiology". Worldwide “Imaging Technologies” sales are expected to increase from USD 39.5 billion to USD 51.0 billion between 2017 and 2024. The volume of the sub segment of mobile C-arms is estimated to be between USD 800 million and USD 900 million.

The gross revenue and the EBIT of this segment developed as follows compared to previous year's period:

in EUR '000	2018	2017	Change
Gross revenue	206,013	292,363	- 86,350
EBITDA	186,649	108,877	77,772
EBITDA margin in %	90.6	37.2	53.4
EBIT	178,596	97,055	81,541
EBIT margin in %	86.7	33.2	53.6

Considering the sale of the W.O.M. Group in July 2017 and the sale of Haema at the beginning of June 2018, both gross revenue and EBIT are essentially in line with our expectations.

The following comments on the individual companies of the segment are based on unconsolidated figures.

The Ziehm Group generated a gross revenue of EUR 149.8 million in the financial year 2018, which corresponds to an increase of EUR 11.5 million compared to the previous year. EBIT even increased by EUR 5.4 million to EUR 22.0 million, bringing the EBIT margin to 14.7 % (previous year: 12.0 %). The reason for this is the strong increase in sales of C-arms and a strong sales growth in the sales regions Asia Pacific and Europe, especially in the high-end segment.

In the reporting period, OrthoScan generated a gross revenue of EUR 27.8 million, which is thereby by EUR 0.4 million below previous year due to currency translation effects. On a US dollar basis even a slight growth could be achieved. EBIT fell from EUR 1.3 million in the same period of the previous year to EUR 0.7 million. This decline is mainly due to higher purchase and distribution costs in the Euro region.

Haema's gross revenue until the deconsolidation at the beginning of June 2018 amounts to EUR 39.4 million in the reporting period (previous year: EUR 95.7 million). The EBIT is at EUR 1.2 million (previous year: EUR 2.6 million). The sale of Haema with the closing as of 4 June 2018 additionally led to a deconsolidation gain of EUR 156.5 million at ATON Group level.

In the previous year period, the W.O.M. Group contributed with a gross revenue of EUR 40.6 million and an EBIT of EUR 4.9 million to the segment.

4. AT Aviation

The outlook for new deliveries of business jets remains very positive. Over the next decade, a delivery volume of more than 8,600 aircraft is expected. The industry is characterised by a market concentration characterised by procurement advantages and economies of scale due to higher fleet size, or by offering of complete solutions for services in connection with the aircraft. In particular, integrated maintenance takes a high priority.

The gross revenue and the EBIT of this segment, which consists of the DC Aviation, developed as follows compared to the previous year's period:

in EUR '000	2018	2017	Change
Gross revenue	75,323	70,957	4,366
EBITDA	- 247	- 3,257	3,010
EBITDA margin in %	- 0.3	- 4.6	4.3
EBIT	- 509	- 3,521	3,012
EBIT margin in %	- 0.7	- 5.0	4.3

Although both, gross revenue and EBIT are above previous year's figures, they are below budgeted figures, as the budgeted growth in managed aircrafts could not be fully achieved.

Gross revenues in the segment AT Aviation increased by 6.2 % from EUR 71.0 million to EUR 75.3 million compared to the previous year's period due to higher chargeable operating hours. Thereby, DC Aviation closed the financial year 2018 still negative, but significantly improved with an EBIT at EUR -0.5 million (EUR -3.5 million).

In addition to the business fields of management and the chartering of jets and helicopters, the airplane hangar and engineering operations of DC Aviation were recently able to significantly expand their capacity utilization. As a result, the business fields maintenance, repair and technical modification of business aircraft operated by DC Aviation, as well as the maintenance of third-party aircraft not operated by DC Aviation, is increasingly gaining in economic importance and therefore stabilizing the earnings trend.

All three international subsidiaries and joint ventures based in Switzerland, Malta and Dubai present positive results in the financial year 2018. Currently, 30 aircraft are managed in the fleet group of the DC Aviation.

IV. RESULTS OF OPERATIONS, FINANCIAL AND NET ASSETS POSITION

The overall picture of the business development of the ATON Group, which results from the sum of the above-illustrated segments as well as the ATON GmbH and the other companies within the ATON Group, is explained below.

The key financial performance indicators are gross revenue, earnings before interest and taxes (EBIT) and earnings after tax (EAT).

1. Results of operations

The following overview presents the Group's results of operations, where the items of income and expense are grouped from an economic perspective:

in EUR '000	2018		2017		Change	
Revenue	2,461,602	99.8%	2,150,386	100.1%	311,216	
Gross revenue	**2,466,989**	**100.0%**	**2,148,616**	**100.0%**	**318,373**	**14.8%**
Cost of materials	- 892,370	- 36.2%	- 917,534	- 42.7%	25,164	
Gross profit	**1,574,619**	**63.8%**	**1,231,082**	**57.3%**	**343,537**	**27.9%**
Personnel expenses	- 1,094,259	- 44.4%	- 826,088	- 38.4%	- 268,171	
Impairment losses / reversal of impairment losses on financial assets	- 3,444	0.4%	-	-%		
Other operating expenses ./. income	- 146,169	- 5.9%	- 181,438	- 8.4%	35,269	
EBITDA	**330,747**	**13.4%**	**223,556**	**10.4%**	**107,191**	**47.9%**
Depreciation and amortisation	- 105,971	- 4.3%	- 79,325	- 3.7%	- 26,646	
Impairment losses	- 3,909	- 0.2%	- 578	- 0.0%	- 3,331	
EBIT	**220,867**	**9.0%**	**143,653**	**6.7%**	**77,214**	**53.8%**
Net interest expense	- 18,941	- 0.8%	- 15,371	- 0.7%	- 3,570	
Other financial result	1,136	0.0%	15,433	0.7%	- 14,297	
Net financial result	**- 17,805**	**- 0.7%**	**62**	**0.0%**	**- 17,867**	**- 28,817.7%**
Income taxes	- 35,084	- 1.4%	- 36,113	- 1.7%	1,029	
Consolidated earnings after tax (EAT)	**167,978**	**6.8%**	**107,602**	**5.0%**	**60,376**	**56.1%**
EAT attributable to non-controlling interest	1,204	0.0%	- 141	- 0.0%	1,345	
EAT attributable to owners of the parent	**166,774**	**6.8%**	**107,743**	**5.0%**	**59,031**	**54.8%**

The results of operations are significantly influenced by the full consolidation of the EDAG Group since July 2017. While the EDAG Group was included only within the financial result in the consolidated income statement in the comparative period until June 2017, it is reflected for full 12 months in all items of the consolidated income statement in the financial year 2018 due to its full consolidation. In addition, the sales of the W.O.M. Group in July 2017 as well as Haema at the beginning of June 2018 have a significant impact on the consolidated income statement and its comparability to previous year's period.

Overall, gross revenue is in line with expectations and increased by EUR 318.4 million compared to the previous year's period, with gross revenue increasing in all segments, with one exception.

Gross revenue for the segment AT Engineering rose by EUR 328.2 million to EUR 1,547.2 million in the reporting period, which is mainly due to the full consolidation of the EDAG Group since July 2017. The segment AT Mining recorded an increase of EUR 70.1 million. Gross revenue in the segment AT Med Tech decreased by EUR 86.4 million due to the disposal of the W.O.M. Group in July 2017 and the disposal of Haema at the beginning of June 2018. Gross revenue in the segment AT Aviation increased by EUR 4.4 million.

The cost of materials ratio declined from 42.7 % to 36.2 %. This is primarily due to the segment AT Engineering, where the less cost of material intensive EDAG Group is fully consolidated again for a full 12 months in the reporting period (previous year only for six months). As a consequence, gross profit increased by EUR 343.5 million to EUR 1,574.6 million. The gross profit margin increased significantly to 63.8 % (previous year: 57.3 %).

The personnel expenses ratio of 44.4 % rose by 6.0 percentage points compared to the previous year, which is also mainly attributable to very staff-intensive EDAG Group, which is consolidated for full 12 months during the reporting period. The EDAG Group alone stands for an increase of EUR 269.1 million of a total increase of EUR 268.2 million.

The net amount of other operating expenses / income improved by EUR 35.3 million from EUR -181.4 million to EUR -146.2 million. This is mainly attributable to the deconsolidation gain form the disposal Haema in the amount of EUR 156.5 million (previous year: deconsolidation gain from the disposal of the W.O.M. Group in the amount of EUR 73.5 million. In contrast, the again fully consolidated EDAG Group contributed an increased net amount of EUR -52.0 million.

As a result of the effects described above, EBITDA increased by EUR 107.2 million to EUR 330.7 million.

Depreciation and amortisation increased by 37.5 %, or EUR 30.0 million, to EUR 109.9 million compared to the previous year, mainly due to the now for full 12 months consolidated EDAG Group (EUR +25.2 million). Depreciation and amortisation of the Redpath Group also increased by EUR 4.7 million. In addition, unscheduled depreciation on property and buildings amounting to EUR 3.8 million was recorded at Deilmann-Haniel Mining Systems. This was offset by lower depreciation and amortisation at Haema (EUR -2.8 million) and the W.O.M. Group (EUR -1.3 million) due to the deconsolidation in 2018 and 2017, respectively.

EBIT increased by EUR 77.2 million to EUR 220.9 million (previous period: EUR 143.7 million) and, taking into account the Haema sale, meets expectations. The EBIT margin increased from 6.7 % in previous year's period to 9.0 % in the reporting period.

In the segment AT Engineering, the EBIT margin increased from 2.6 % to 3.9 %, but is still very low mainly due to the amortisation effects from the purchase price allocation of the EDAG Group. In the segment AT Mining, the EBIT margin increased from 6.0 % to 6.7 %. In the segment AT Med Tech, the EBIT margin increased from 33.2 % to 86.7 %, mainly due to the deconsolidation gain of Haema. In the segment AT Aviation, the EBIT margin improved from -5.0 % to -0.7 %.

The net interest result is negative and fell by EUR 3.6 million compared to the previous year. This is due, on the one hand, to the decline in interest income, above all from reduced loans to related companies and the EDAG

Group, which is now fully consolidated again. On the other hand, financial liabilities have increased significantly, especially to finance the takeover offer for the Murray & Roberts Group.

The other financial result declined from EUR 15.4 million in the comparable period to EUR 1.1 million in the reporting period, mainly due to a decline in the results from securities (EUR -13.3 million) and the write-down of subscription rights / shares to the current market price (EUR -12.2 million). In contrast, the result from companies accounted for using the equity method increased significantly (EUR +12.1 million).

The Group tax rate declined from 25.1 % in the comparable period to 17.3 %. Above all, the non-taxable gain on the disposal of Haema is responsible for the low Group tax rate. This was partly offset by non-deductible expenses related to the acquisition and disposal of Group units. In addition, deferred taxes were not recognised in some group companies due to the absence of the expected use of the tax loss carry forwards.

The earnings after taxes (EAT) increased by EUR 60.4 million to EUR 168.0 million and are in line with expectations overall. After deduction of EAT attributable to non-controlling interest, the EAT attributable to owners of the parent amounts to EUR 166.8 million (previous period: EUR 107.7 million).

2. Financial position

The statement of cash flows presents the Group's cash flows from operating, investing and financing activities, and the resulting change in cash and cash equivalents. The following overview provides a condensed cash flow statement:

in EUR '000	2018	2017	Change	
Cash and cash equivalents at the beginning of the period	**187,371**	**210,454**	**- 23,083**	**- 11.0%**
Income before interest, dividends and income taxes	219,781	156,777	63,004	
Depreciation and amortisation / write-ups of assets	124,374	79,558	44,816	
Result from the disposal of property, plant and equipment and securities	- 1,372	- 2,900	1,528	
Result from the disposal / deconsolidation of consolidated subsidiaries	- 156,494	- 71,961	- 84,533	
Change in provisions	10,713	- 2,855	13,568	
Other non-cash transactions	- 8,957	1,841	- 10,798	
Gross cash flow	**188,045**	**160,460**	**27,585**	**17.2%**
Interest, dividends and income taxes paid / received	- 45,158	- 36,762	- 8,396	
Changes in trade working capital	332,536	- 133,628	466,164	
Changes in other working capital	- 249,758	99,486	- 349,244	
Cash flow from operating activities	**225,665**	**89,556**	**136,109**	**>100%**
Investments in / proceeds from the disposal of intangible assets and property, plant and equipment	- 117,410	- 68,276	- 49,134	
Investments in / proceeds from the disposal of financial assets / associates	- 7,155	- 56,737	49,582	
Proceeds from the disposal of / payments for the acquisition of consolidated subsidiaries	212,495	131,140	81,355	
Cash flow from investing activities	**87,930**	**6,127**	**81,803**	**>100%**
Payments to shareholders	- 6,467	- 93,633	87,166	
Payments for the acquisition of non-controlling interests	- 20,152	- 4,284	-15,868	
Proceeds from / repayments of bank loans and finance leases	87,872	- 10,448	98,320	
Cash flow from financing activities	**61,253**	**- 108,365**	**169,618**	**-**
Effect of changes in exchange rates	- 2,910	- 10,401	7,491	
Cash and cash equivalents at the end of the period	**559,309**	**187,371**	**371,938**	**>100%**

The cash flow from operating activities increased by EUR 136.1 million compared to previous year's period.

The gross cash flow is at EUR 188.0 million and therefore EUR 27.6 million above previous year's level. The income before interest, dividends and income taxes increased by EUR 63.0 million, depreciation and amortisation by EUR 44.8 million and the change in provisions by EUR 13.6 million compared to the previous year's period. The result from the disposal / deconsolidation of consolidated subsidiaries is deducted in the amount of EUR 156.5 million, whereas in the previous year only EUR 72.0 million were deducted.

The substantial improvement in cash flow from operating activities results from the EUR 332.5 million decline in trade working capital, which represents an improvement of EUR 466.2 million compared to the previous year. On the other hand, changes in other working capital are at EUR -249.8 million, which represents an additional increase of EUR 349.2 million compared to the previous year. Overall, the decline in changes in working capital has a positive effect amounting to EUR 116,9 million on the development of cash flow from operating activities in the reporting period.

The decline in dividends received by EUR 9.4 million to EUR 10.6 million is mainly due to the fact that the ED-AG Group is now fully consolidated again. The increase in interest paid by EUR 1.8 million due to new loans also had a negative impact. In contrast, income taxes paid decreased by EUR 3.0 million.

The cash flow from investing activities shows a cash inflow of EUR 87.9 million in the reporting period (previous year: EUR 6.1 million). Net investments in property, plant and equipment and intangible assets increased by EUR 49.1 million to EUR 117.4 million. Net cash outflows for investments in / sales from financial assets and associates amount to EUR 7.2 million in the reporting period (previous year: EUR 56.7 million). These are primarily investments in associated companies (mainly for the Murray & Roberts Group amounting to EUR 65.2 million and Aveng amounting to EUR 16.3 million), which are opposed by sales of securities. The sales of the consolidated subsidiaries Haema and Reform Grinding Technology GmbH resulted in a net cash inflow of EUR 212.5 million.

The cash flow from financing activities shows a cash inflow totalling EUR 61.3 million (previous year: cash outflow of EUR 108.4 million). The cash inflow in the reporting period is mainly due to the net cash inflow from bank loans amounting to EUR 105.8 million. On the contrary, lease liabilities in the amount of EUR 17.9 million were repaid and there were payments for the acquisition of minority interests in the amount of EUR 20.2 million and distributions to minority shareholders of EUR 6.5 million.

Taking into account the effect of changes in currency exchange rates, a total cash inflow of EUR 371.9 million resulted in the reporting period (previous year: cash outflow of EUR 23.1 million). Accordingly, cash and cash equivalents increased from EUR 187.4 million at the beginning of the reporting period to EUR 559.3 million at the end of the reporting period.

3. Net assets position

in EUR '000	31.12.2018		31.12.2017		Change	
Assets						
Intangible assets	434,704	17.0%	483,019	21.0%	- 48,315	- 10.0%
Property, plant and equipment	361,001	14.1%	324,703	14.1%	36,298	11.2%
Financial assets	306,196	12.0%	308,199	13.4%	- 2,003	- 0.6%
Inventories	153,571	6.0%	139,465	6.1%	14,106	10.1%
Trade and other receivables	424,606	16.6%	810,122	35.3%	- 385,516	- 47.6%
Deferred tax assets	14,699	0.6%	15,314	0.7%	- 615	- 4.0%
Cash and cash equivalents	559,309	21.9%	187,371	8.2%	371,938	198.5%
Contract assets	289,695	11.3%	-	-%	289,695	-
Other assets	9,735	0.4%	28,991	1.3%	- 19,256	- 66.4%
Total assets	**2,553,516**	**100.0%**	**2,297,184**	**100.0%**	**256,332**	**11.2%**
Equity and liabilities						
Equity	1,178,906	46.2%	1,192,699	51.9%	- 13,793	- 1.2%
Provisions	86,939	3.4%	80,075	3.5%	6,864	8.6%
Financial liabilities	657,729	25.8%	389,022	16.9%	268,707	69.1%
Trade and other payables	350,354	13.7%	536,679	23.4%	- 186,325	- 34.7%
Deferred tax liabilities	76,104	3.0%	81,797	3.6%	- 5,693	- 7.0%
Contract liabilities	194,291	7.6%	-	-%	194,291	-
Other liabilities	9,193	0.4%	16,912	0.7%	- 7,719	- 45.6%
Total equity and liabilities	**2,553,516**	**100.0%**	**2,297,184**	**100.0%**	**256,332**	**11.2%**

The balance sheet total increased by EUR 256.3 million compared to 31 December 2017.

The decline in intangible assets of EUR 48.3 million is partly attributable to the deconsolidation of Haema. This resulted in a disposal of goodwill in the amount of EUR 14.6 million and other intangible assets amounting to EUR 1.5 million. Moreover, scheduled depreciation and amortisation (EUR 42.1 million) exceeds the additions (EUR 11.8 million) in the reporting period.

Property, plant and equipment increased by EUR 36.3 million. This is mainly due to additions to property, plant and equipment amounting to EUR 148.2 million. Depreciation and amortization of the reporting period amounted to EUR -67.8 million. In addition, property, plant and equipment declined by EUR -25.4 million due to the deconsolidation of Haema and by EUR -4.7 million due to exchange rate effects.

Financial assets decreased by EUR 2.0 million. The decrease is mainly attributable to the sale of a portfolio of securities at ATON GmbH, which was still in the books at EUR 76.9 million in the previous year. In contrast, further investments into the Murray & Roberts Group amounting to EUR 68.5 million are having an increasing impact. The investment in the Murray & Roberts Group is reported at a value of EUR 214.3 million as of 31 December 2018. The acquisition of shares in Aveng Ltd. during the year, which was valued at EUR 4.1 million at the balance sheet date, also dampens the decline in financial assets.

Trade receivables and other receivables fell by EUR 385.5 million. This is mainly due to the first-time application of IFRS 15. This resulted in a reclassification of the receivables from construction contracts (EUR 430.3 million) reported in the previous year in accordance with IAS 11 to the new balance sheet item contract assets pursuant to IFRS 15. In contrast, short-term trade receivables increased by EUR 24,1 million and VAT refund claims by EUR 17.6 million.

Working capital declined by EUR 89.7 million, which is mainly due to the above explained decrease of trade receivables and other receivables decreased by EUR 385.5 million. The new balance sheet item contract assets pursuant to IFRS 15 increased by EUR 289.7 million, inventories increased by EUR 14.1 million. In addition, there is an increase of EUR 194.3 million in the new balance sheet item contract liabilities pursuant to IFRS 15. This is offset by a decrease of EUR 186.3 million in trade and other payables, which in the previous year still included liabilities from construction contracts and are now reported under contract liabilities.

Cash and cash equivalents rose by EUR 371.9 million. Concerning information on changes in cash and cash equivalents please refer to the section “Financial position”.

The new balance sheet item contract assets pursuant to IFRS 15 in the amount of EUR 289.7 million results from the fact that the Group has already fulfilled its performance obligation over a certain period of time, but the consideration of the customers is still outstanding.

As of the balance sheet date, other assets mainly include income tax receivables in the amount of EUR 9.2 million. The decrease of EUR 19.3 million in this item results in particular from income tax receivables amounting to EUR 9.6 million and the disposal of non-current assets held for sale (Reform Grinding Technology GmbH) in the amount of EUR 9.4 million.

The equity ratio fell from 51.9 % at the end of the previous year to 46.2 % at the balance sheet date. Despite a consolidated result of EUR 168.0 million, equity declined by EUR -13.8 million in absolute terms. This is mainly due to the profit transfer to the shareholder ATON 2 GmbH based on the profit-and-loss transfer agreement signed in 2018 amounting to EUR 146.1 million, which has to be accounted for as an equity transaction in accordance with IFRS. In addition, the acquisition of non-controlling interest in the EDAG Group led to an offset against reserves without effect on the income statement reducing equity by EUR 20.2 million. In addition, the negative other comprehensive income after tax amounting to EUR 8.9 million and dividend payments to non-controlling interest amounting to EUR 6.5 million reduced the equity as of 31 December 2018.

Provisions increased by EUR 6.9 million. This is mainly due to higher other provisions (EUR +6.1 million), higher provisions for pensions (EUR +3.0 million) and lower tax provisions (EUR -2.2 million).

Financial liabilities increased by EUR 268.7 million. This is primarily due to a net increase in loans from banks and bonded loans in the amount of EUR 315.3 million. These are essentially funds for the financing of the takeover bid for the Murray & Roberts Group. In addition, there is a liability from the profit and loss transfer agreement signed with ATON 2 GmbH in 2018 in the amount of EUR 146.1 million. The scheduled repayment of the bond issued in 2013 in the amount of EUR 200.0 million have an opposing effect.

Trade and other payables declined by EUR 186.3 million, mainly because of the first time application of IFRS 15. This resulted in a reclassification of the liabilities from construction contracts recognised in accordance with IAS 11 into the new balance sheet item contract liabilities.

The new balance sheet item contract liabilities in accordance with IFRS 15 amounting to EUR 194.3 million results from the fact that customers paid (partly) the consideration before the Group provided the service over a certain period of time.

Other liabilities solely include income tax liabilities amounting to EUR 9.2 million. This balance sheet item decreased by EUR 7.7 million compared to the previous year, which is due to EUR 5.1 million lower income tax liabilities and to the disposal of liabilities associated with assets held for sale at Reform Grinding Technology GmbH in previous year amounting to EUR 2.6 million.

The following overview presents assets and capital according to maturity:

in EUR '000	**31.12.2018**		**31.12.2017**	
Non-current assets				
Intangible assets and property, plant and equipment	795,705	31.2%	807,722	35.2%
Financial assets	288,191	11.3%	224,711	9.8%
Other assets	20,383	0.8%	20,478	0.9%
	1,104,279	**43.2%**	**1,052,911**	**45.8%**
Current assets				
Inventories	153,571	6.0%	139,465	6.1%
Receivables and contract assets	709,159	27.8%	805,758	35.1%
Other financial assets	18,005	0.7%	83,488	3.6%
Cash and cash equivalents	559,309	21.9%	187,371	8.2%
Other assets	9,193	0.4%	28,191	1.2%
	1,449,237	**56.8%**	**1,244,273**	**54.2%**
Long-term capital				
Equity	1,178,906	46.2%	1,192,699	51.9%
Financial liabilities	222,378	8.7%	88,161	3.8%
Provisions, liabilities and contract liabilities	127,072	5.0%	59,791	2.6%
Other liabilities	76,104	3.0%	81,797	3.6%
	1,604,460	**62.8%**	**1,422,448**	**61.9%**
Short-term capital				
Financial liabilities	435,351	17.0%	300,861	13.1%
Provisions, liabilities and contract liabilities	504,512	19.8%	556,963	24.2%
Other liabilities	9,193	0.4%	16,912	0.7%
	949,056	**37.2%**	**874,736**	**38.1%**

Non-current assets of EUR 1,104.3 million are financed by long-term capital by 145.3 % (previous year: 135.1 %). Including short-term financial liabilities from loan liabilities to related parties and shareholders in the amount of EUR 171.0 million (previous year: EUR 25.1 million), which are available to the Group as basic funding, the ratio amounts to 160.8 % (previous year: 137.5 %). Furthermore, current assets are financed with long-term capital at a ratio of 34.5 % (previous year: 29.7 %).

The following overview presents the coverage ratios of current assets and capital:

in EUR '000	31.12.2018	Share in total assets	31.12.2017	Share in total assets
Current assets	1,449,237	57%	1,244,273	54%
Short-term capital	949,056	37%	874,736	38%
Surplus cover or Coverage ratio	**500,181**	**153%**	**369,537**	**142%**

The coverage ratio shows that the Group is based upon a very sound financing as of 31 December 2018.

Net debt position is as follows:

in EUR '000	31.12.2018	31.12.2017	Change
Cash and cash equivalents	559,309	187,371	371,938
Short-term securities	5,599	82,912	- 77,313
Short-term loans	11,882	183	11,699
Financial liabilities	- 657,729	- 389,022	- 268,707
Net cash (+)/debt (-)	**- 80,939**	**- 118,556**	**37,617**

The change of this performance indicator is primarily the result of the proceeds from the sale of Haema.

V. EMPLOYEES

The expertise of qualified employees is our main asset. Qualified and highly-motivated employees are essential to the success and future competitive advantage of our company. In selective training programmes our employees are developed in professional, methodological and social skills. Furthermore, the Group promotes a systematic professional development training programme and prepares young employees to take on managerial responsibilities.

With initial vocational training and integrated study degree opportunities in business and technical professions, the company offers a broad selection of opportunities for the professional entry. The promotion of training programmes is supplemented with the cooperation with public educational providers and university-level institutes.

In 2018, EUR 7.0 million (previous year: EUR 5.8 million) were invested in advanced training and development programmes for our employees.

The ATON Group employed on average 18,678 employees during the financial year (previous year: 15,561 employees), whereby the increase is due to the consolidation of the EDAG Group since July 2017.

In the financial year, the breakdown of employees into categories was as follows:

	2018	in %	2017	in %
Salaried staff	13,424	72%	9,823	63%
Industrial workers	4,342	23%	4,762	31%
Trainees and interns	912	5%	976	6%
Total employees	**18,678**	**100%**	**15,561**	**100%**
Production and service	16,055	86%	13,219	85%
General administration	2,019	11%	1,674	11%
Sales and marketing	523	3%	511	3%
Research and development	81	0%	157	1%
Total employees	**18,678**	**100%**	**15,561**	**100%**
Germany	9,449	51%	7,309	47%
Europe (excluding Germany)	1,903	10%	1,152	7%
North America	2,016	11%	1,678	11%
South America	367	2%	232	1%
Australia	705	4%	473	3%
Asia	2,936	16%	2,836	18%
Africa	1,302	7%	1,881	12%
Total employees	**18,678**	**100%**	**15,561**	**100%**

VI. EXPECTED DEVELOPMENTS, OPPORTUNITIES AND RISKS

1. Expected developments

Global economic growth is expected to slow from 3.2 % in the previous year to 2.9 % in 2019 (refer to Global Insight World Overview from 15 January 2019). This outlook is nonetheless subject to considerable uncertainties, especially in connection with increasing protectionism worldwide, Brexit negotiations and the effects of volatile oil prices on the global economy.

The Asia / Pacific region is expected to see the fastest economic growth in 2019 with 4.7 % (previous year: 4.9 %). China remains one of the fastest growing countries in the world with an economic growth rate of 6.3 %, despite again experiencing a slower pace of expansion than in recent years. The North America region is expected to expand by 2.4 % (previous year: 2.8 %). Higher employment figures and positive developments on US property and stock markets will contribute to this forecast. Factors that may slow US growth include the effects of protectionist measures, ongoing budgetary disputes and higher interest rates.

A growth rate of 1.5 % is forecast for Europe as a whole in 2019, which is more modest than in the previous year (2.0 %). The effects of punitive tariffs, resurgent conflicts about sovereign debt within the euro area and the effects of Brexit are all expected to hamper growth.

The sustained upturn that Germany has enjoyed over the past nine years has recently lost some momentum. This is partly explained by the less favourable external environment and by considerable production-related problems in the automotive industry. Another factor is that capacity constraints are causing the pace of expansion to slow down, taking it closer to the trend growth rate. Indications of macroeconomic overutilisation of capacity have increased. A distinct shortage of workers is observable in many areas. Moreover, wages and consumer prices have picked up. Overall, gross domestic product is expected to slightly decline from 1.5 % in 2018 to 1.4 % in 2019, respectively.

Thereby, the risks are high. In particular, there is a threat of further escalation or a resurgence of trade disputes. The resulting potential tariff increases on trade and value chains increase uncertainty and may thus adversely affect the positive development of the global economy. In addition, the financial stability risks are increased in some countries.

Another risk is the Brexit. Subject to regulations governing future relations between the UK and the EU , there is a threat of significant growth slowdown in the United Kingdom and to a lesser extent in other countries. In many member states of the euro area, major challenges are posed by high levels of sovereign debt, combined with low growth potential and higher interest rates in the medium term. Thus, it is questionable how much fiscal room for manoeuvre will remain in any future downturn. Furthermore, political uncertainty, the lack of determination to achieve sound public finances, and the withdrawal of structural reforms could undermine confidence in the debt sustainability of individual member states and thus in the stability of the monetary union.

Considering the expected development of the business environment and despite political uncertainty, we assume that the gross revenue, EBIT and EAT in 2019 will be significantly above previous year's figures due to the sale of the FFT Group and acquisition of control over Murray & Roberts in the first half year of 2019.

2. Risks

a) Macroeconomic risks

Regarding the macroeconomic risks, please refer to the expected developments as well as to the explanations of the macroeconomic development.

b) Financial risks

Liquidity risks

The provision of required liquid funds to implement corporate objectives continues to remain of central importance. The liquidity of the Group is currently secured by the available cash and bank balances as well as sufficient lines of credit. Cash, including short-term investments in bonds, amounted to EUR 564.9 million as of the end of the financial year; including short-term loans and financial liabilities, the net cash amounted to EUR -80.9 million. Financial liabilities of EUR 657.7 million include EUR 171.0 million of loans from related parties and shareholders that are available on a long-term basis. In addition, the Group and the individual companies have access to sufficient lines of credit and guarantee facilities from banks and credit insurers. As of the end of December 2018, the Group has at its disposal EUR 526.1 million unutilised lines of credit at banks and credit insurers.

The development of liquidity and available liquid funds is monitored and managed via weekly cash reports. Thus, liquidity risks are addressed by appropriate measures at an early stage. Additional profit contributions are generated by maturity transformation of financial assets. Furthermore, the necessary liquidity reserve is optimized at the level of the entire Group and the aim is always to improve the conditions with banks in the area of payment transactions and cash management by using higher transaction volumes.

Interest rate risks

Interest rate risks due to changes in the market interest rates primarily result from variable-rate loan liabilities. The Group addresses the risk through a mixture of fixed- and variable-rate financial liabilities. As of the end of the year, EUR 198.1 million of financial liabilities from banks were fixed-rate liabilities and EUR 250.6 million were variable-rate liabilities. In addition, EUR 171.0 million of fixed-rate financial liabilities to related parties and shareholders exists as of the end of the year. The low leverage of the Group contributes to a further reduction of the interest rate risk.

Foreign currency risks

To the extent possible and available, foreign currency risks are hedged via local financing of the subsidiaries in the respective national currency. For further protection, foreign exchange futures are concluded at the level of the subsidiaries and the parent, as well as between the parent and the subsidiaries in individual cases.

Default risks

In order to limit default risks, there are a number of protective measures at the subsidiaries. In Germany, default risks are generally addressed by credit insurers, letters of credit and prepayments. Domestically and abroad, there are established credit check procedures at the subsidiaries. In the great majority of cases, customers are companies with high credit ratings operating in the automotive, commodities or medical industries and public entities. Default risks are furthermore mitigated by retentions of title and the use of letters of credit.

Covenant risks

The majority of financing contracts with banks include covenants that are based on predefined financial ratios. The ratios mainly are equity ratios, leverage ratios and in individual cases, interest coverage ratios. If one of the agreed threshold of the covenants is violated, the lender has the right of termination. The existing covenants were complied with.

On 28 December 2017, a loan agreement was signed with Landesbank Hessen-Thüringen Girozentrale for a loan agreement with a total amount of EUR 350.0 million. The loan agreement had an original term until 31 October 2018 and was extended by two renewal agreements dated 12 March 2018 and 26 November 2018 until 30 September 2019 as the final maturity date. The loan has a variable interest rate, has been paid out in March 2018 and has been repaid to a residual amount of EUR 225.0 million as of balance sheet date. The terms and conditions of the loan agreement include contractual clauses that use financial covenants to limit the consolidated debt-equity ratio of the ATON Group and the financial liabilities of the subsidiaries. Moreover, the terms and conditions include regulations regarding securing financial liabilities, transactions with owners, change of control and the maximum amount of dividends. In addition, special unscheduled repayments have been agreed in case of certain events.

Other price risks

Another market risk is the price risk, being that prices for financial assets change unfavourably. Eligible risk variables are stock exchange prices or indices in particular. At the end of the financial year 2018, the Group has only EUR 25.3 million in securities at fair value through profit or loss, so that there is no material risk.

For further explanation regarding the risk report and the risk management system, please refer to Note **35. Objectives and methods of financial risk management** of the notes to the consolidated financial statements.

c) Risks of the segments

In addition to the aforementioned macroeconomic and financial risks, the individual segments are exposed to specific risks from operating activities.

AT Engineering

In the segment AT Engineering, project risks are in the foreground. Especially, large-scale projects are complex and executed in parallel in different countries. Sometimes the scope of the services is agreed upon only after an agreement on the total price has been reached. Occasionally, the scope of the services is formulated in an unclear way and leads to additional expenses that are not reimbursed. Unexpected project developments may lead to delays, cost overruns and quality defects, thus straining the company's net assets and financial position and results of operations. Companies are able to detect and address such risks at an early stage by continuous project and risk management, constant project assessments as well as detailed reporting within the context of project steering committees.

EDAG Group and FFT Group are in part strongly dependent on certain automotive manufacturers and hence on their long-term strategies and sales success.

AT Mining

The greatest risk concerning growth within the Redpath Group is the challenge to retain qualified employees to the company in the long term. In addition, political risks play an important role. The activities of the Redpath Group are partly executed in politically unstable regions. This may have an impact on the future results of operations of the Redpath Group. Other risks, especially in the short and medium term, are deterioration in commodity prices as this may cause mine operators to abandon or delay projects and to cut back on capital investments. Furthermore, long delivery times for machinery could lead to delays of existing projects and increasing competition could reduce profitability. The cancellation of major projects and technical risks in new projects can also influence the development of the Group.

AT Med Tech

The companies Ziehm and OrthoScan develop innovative products. In this regard on the one hand the risk exists that the products will not be accepted by the market as originally planned. This implies that the targeted expansion of market share may not be achieved or that market shares may get lost. The companies address this risk by continuously monitoring the market and conducting studies on the marketability of products throughout their entire life cycle. On the other hand a multitude of national and international standards and regulations must be complied with in the field of medical technology. With the increasing internationalisation and the high pace of innovation of the companies, regulatory requirements also increase. In case that the requirements are not complied with, this may lead to a ban on marketing the products.

A general risk for the segment is the development of healthcare policy. A weakening economy could lead to reduced spending in healthcare, which would directly impact the sale of products.

AT Aviation

Besides typical industry risks such as conflicts and terrorism, recessions, embargoes, sanctions, increases in kerosene prices and commodities, strikes, epidemics, natural disasters or changes in legal framework conditions (e.g. environmental regulations or additional levies), aviation companies are exposed to potential flight risks and technical operational risks. Particularly, these include the risk that flight operations cannot be constantly performed due to technical or external factors as well as the risk of aircraft accidents with the danger of property damage and personal injury. In order to reduce the risk of flight accidents caused by human error in particular, the statutory and additional safety trainings of pilots are regularly carried out. In addition, appropriate insurance coverage is provided. Internal standard operating procedures and the continuous improvement of the internal control system through comprehensive quality and compliance audits ensure that risks are identified and prevented at an early stage.

DC Aviation is specialised in the management and operation of business aircrafts and in the premium charter business. Experience has shown that the business aviation sector responds immediately to the economic situation. A slowdown in the economy has a direct impact on charter capacity utilization, in which DC Aviation bears a direct cost risk, while the cost risk for aircraft management lies with the owners. The increasing importance of own airplane hangar operation contributes to the compensation of economic fluctuations, since the compulsory maintenance intervals of the aircraft must be followed independent of economic cycles.

d) Legal risks

After the squeeze-out of the external stockholders of W.O.M. World of Medicine AG – now registered as W.O.M. WORLD OF MEDICINE GmbH – the former minority shareholders have initiated legal proceedings (“Spruchverfahren”) to verify the adequacy of the compensation (“Barabfindung”) of EUR 12.72 per share in the meantime. The legal proceedings before the Regional Court of Berlin (“Landgericht Berlin”) are still pending. The duration and the outcome of the proceedings are still open.

3. Opportunities

a) Opportunities in general

The subsidiaries of the ATON Group belong to the national and international market leaders in various fields and product segments in terms of revenue or the technological level of their products and services. Based on the high level of technological expertise, a high product quality as well as long-term customer relationships the ATON Group sees opportunities for further expansion of the particular market shares. The future strategic orientation of the individual companies' services and products and prospective selective strengthening of the corporate portfolio in the individual business segments leveraging synergies within those segments will enable the companies to create additional opportunities.

b) Opportunities of the segments

AT Engineering

According to a study by IHS Markit, global automobile production fell by 1.0 % to 94.2 million units in 2018. The regions China, Europe and North America are primarily responsible for this decline. For 2019, a slight growth of 1.0 % is expected. While Europe (0.0 %), North America (-0.5 %) and Japan / Korea (+ 0.5 %) are projected to nearly stagnate production, growth rates are expected to be at 1.7 % for China, at 4.5 % for South Asia and at 6.5 % for South America. Starting in 2020, global growth momentum is expected to increase in terms of production volumes (2020: +1.4 %, 2021: +3.0 %), mainly driven by China and South Asia.

The expected slight "growth dip" of the global automotive industry in 2018/19, with simultaneously expected revenue growth rates of more than 2 % from 2020, will continue to provide positive stimuli to the market for engineering services. Significant growth impulses are mainly generated by electromobility. In addition to electromobility, digitisation is the second major future trend in the automotive industry. This is about networked and autonomous driving. It is expected that our AT Engineering segment will participate strongly in these positive trends.

The EDAG Group is one of the leading engineering service provider. The resulting strengthened market position and the significantly expanded range of services will open up opportunities to strengthen existing customer relationships and build new ones.

AT Mining

The development of commodity prices is determined over the long term by the interaction between physical supply and demand. In the short term many other variables such as e.g. market sentiment or positioning speculative market participants have an influence on the price trend. Since 2016, commodity prices have moved volatile, but followed a sideways trend. The production capacities are sufficient to serve the increasing global demand for raw materials. The prolonged relatively low level of commodity prices and the associated weak investment activity of the past will likely have a negative impact on the supply development in the future. For 2019, we anticipate a sideways movement in commodity prices due to the slowdown in global growth.

In the medium to long term, we anticipate a recovery in demand for raw materials. Consequently, rising commodity prices will result in higher demand for mining contractor services. The services of the Redpath Group and the Murray & Roberts Group will see an increasing demand, as large mining operators will expand their mining operations in the long term.

AT Med Tech

Following an annual growth rate in worldwide health expenditure of 2.9 % p.a. over the period 2013 to 2017, average annual expenditure growth of 5.4 % is expected for the period from 2018 through 2022. The growth of global health expenditure is essentially driven by population growth, the increase in the share of older people, increasing prosperity (especially in Asia), and clinical and technological progress. This is counteracted by the cost-saving pressure in the health care systems and the efficiency increases.

Growth potential for ATON Group's companies within the segment AT Med Tech lies above all in the continuation of the penetration of the core markets of Europe and North America and in the continued expansion into the markets of Asia and South America. This is made possible by the continual promotion of technological innovations, which aims to ensure technology leadership.

However, it should be noted that the national health care markets, and consequently the corresponding medical technology markets, tend to be generally highly regulated, which may lead to a fluctuation in demand irrespective of the rest of the economy.

AT Aviation

DC Aviation is licensed to operate an airline at four international locations. The company owns its own "AOC" (Aircraft Operating Certificate) at all four destinations, i.e. it owns a national license to operate as a commercial air carrier. The same applies to the permission to handle private aircrafts under a so-called "FBO" (Fixed Base Operator) as a handling agent and to offer various ground services up to refuelling (as in the case of Dubai). The provision of technical services Finally, under an "MRO" license (maintenance, repair, overhaul) takes place in Stuttgart and the United Arab Emirates, in the case of Dubai in cooperation with Lufthansa Technik AG.

In particular, the aviation operator's certificate in Malta opens up additional market opportunities for DC Aviation to acquire European customers who do not wish to register their aircraft in Germany or, very acutely, seek a new location due to the unpredictable implications of the Brexit rocess. DC Aviation has a reputation for excellence and safety in the business aviation industry. Based on this, it is the company's goal to continuously expand its fleet strength by acquiring renowned corporate clients and private individuals.

c) General statement on risks and opportunities

The ATON Group is exposed to a large number of different risks and opportunities. From the management’s point of view, the operational risks of the business units as well as the macroeconomic risks are more important for the ATON Group than the legal and financial risks. According to the management’s current assessment, these risks overall do not have adverse financial effects on the Group due to the heterogeneous structure and diversified operations in various markets of the ATON Group.

VII. RISK MANAGEMENT AND ACCOUNTING-RELATED INTERNAL CONTROL SYSTEM

1. Management of risks and opportunities

In the course of its business operations, the Group is exposed to risks, which are inextricably linked to its entrepreneurial initiative. A complete exclusion of those risks would only be possible by stopping business activities, insofar the acceptance of risks is part of entrepreneurial action.

The primary objective of the risk management is to ensure the success and going concern of the companies. Risks and opportunities of the individual subsidiaries have to be identified, evaluated, and any risks that potentially endanger the success of companies have to be limited or eliminated.

The subsidiaries of the ATON GmbH operate in different industries, different geographical locations and in various national and international markets. This entails individual company-specific risks, which can result in risks different in nature and scope depending on the activities and the environment of the respective company. Therefore, the focus of risk identification from the respective management board of the subsidiaries is first of all placed on the continuous identification of financial risks in the form of risks to results of operations, financial position and liquidity, which may jeopardise the company as a going concern. Identified risks are reported on an ad-hoc basis to the ATON holding by the management boards of the subsidiaries. In addition, economic, legal, technical and other risks are assessed every six months and discussed with the ATON holding.

As a result of the highly differentiated Group structure, the distribution of opportunities and risks also depends on very different factors in the individual segments and the individual companies respectively. For this reason, risk management and implementation of opportunities is planned and controlled by the companies and agreed with the holding company in short- and medium-term strategy and financial planning meetings. Monitoring of key financial data is performed weekly respectively monthly by means of financial reporting by the individual companies, which are analysed for deviations from the holding company. Regularly, the companies and the holding management review agreed development of strategy and results of operations and determine possible strategy adjustments and countermeasures.

2. Accounting-related internal control system

The internal control system of the ATON Group is designed to ensure that the (accounting-related) Group wide reporting processes are consistent, transparent and reliable as well as in compliance with legal standards and the company's own guidelines. It comprises principles, procedures and methods designed to reduce risk and ensure the effectiveness and accuracy of processes.

The Group's management board bears the overall responsibility for the internal control system and risk management with regard to the consolidated accounting process. All companies included in the consolidated financial statements are embedded in a defined management and reporting organisation. Areas of responsibility related to accounting are clearly structured and assigned by the ATON Group. The central units of the ATON

GmbH, as well as the Group companies, are responsible for carrying out the accounting processes in an adequate way. Major processes and deadlines are defined Group wide by the ATON GmbH.

Beyond that, the accounting of the ATON Group is decentralised. For the most part, accounting duties are performed by the consolidated companies at their own responsibility. The audited financial information of the subsidiaries prepared in accordance with IFRS and the uniform accounting policies are submitted to the Group. The departments involved in the accounting process are appropriately staffed and funded. The acting employees hold the necessary qualifications; case-related external experts are also involved. Control activities at Group level include analysing and, if necessary, adjusting the data reported in the financial information presented by the subsidiaries. The Group management report is centrally prepared in accordance with the applicable requirements and regulations with involvement of and in consultation with the Group companies. Segregation of duties and the implementation of the four-eye principle are additional control mechanisms. The IT systems are protected from unauthorized access. Access rights are assigned according to the functions.

Based upon documented processes, risks and controls, the internal control system is regularly monitored and adjusted to current developments and therefore provides transparency with regard to the structure, workflows and effectiveness of the internal and external reporting.

VIII. DISCLAIMER

The management report contains forward-looking statements concerning expected developments. These statements are based on current estimates and are subject to risks and uncertainties by nature. Actual events may deviate from the statements made in this management report.

Munich, 29 April 2019

ATON GmbH
Management Board

[original German version signed by:]

Dr. Lutz Helmig Georg Denoke Jörg Fahrenbach

ATON GmbH, Munich

CONSOLIDATED FINANCIAL STATEMENTS AS OF 31 DECEMBER 2018

(Translation – the German text is authoritative)

CONSOLIDATED INCOME STATEMENT 2018

in EUR '000	Note	2018	2017
Revenue	6	2,461,602	2,150,386
Changes in inventories and own work capitalised	7	5,387	-1,770
Other operating income	8	211,648	123,933
Cost of materials	9	-892,370	-917,534
Personnel expenses	10	-1,094,259	-826,088
Impairment losses / reversal of impairment losses on financial assets	21, 22, 23	-3,444	0
Depreciation and amortisation	16, 17	-109,880	-79,903
Other operating expenses	11	-357,817	-305,371
Earnings before interest and taxes (EBIT)		**220,867**	**143,653**
Result from investments accounted for using the equity method	12	14,155	2,020
Other investment result		-25	-98
Interest income	13	4,702	4,670
Interest expense	13	-23,643	-20,041
Other financial result	14	-12,994	13,511
Financial result		**-17,805**	**62**
Earnings before income taxes (EBT)		**203,062**	**143,715**
Income taxes	15	-35,084	-36,113
Profit or loss for the period from continuing operations		**167,978**	**107,602**
Profit or loss for the period (EAT)		**167,978**	**107,602**
attributable to non-controlling interest		1,204	-141
attributable to owners of the parent		**166,774**	**107,743**

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME 2018

in EUR '000	Note	2018	2017
Profit or loss for the period		**167,978**	**107,602**
attributable to non-controlling interest		1,204	- 141
attributable to owners of the parent		166,774	107,743
Items that may be subsequently reclassified to profit or loss			
Available-for-sale financial assets			
Gains (+) / losses (-) from fair value valuation recognised in other comprehensive income	27	-	- 474
Deferred taxes on available-for-sale financial assets	15	-	3
Currency translation differences			
Gains (+) / losses (-) from currency translation differences recognised in other comprehensive income	27	- 7,876	- 19,376
Cash flow hedges			
Gains (+) / losses (-) from cash flow hedges recognised in other comprehensive income	27	- 8,039	-
Amount reclassified to profit or loss		5,689	-
Deferred taxes on gains / losses from cash flow hedges	15	705	-
		- 9,521	**- 19,847**
Items that will not be reclassified to profit or loss			
Remeasurements of defined benefit plans			
Remeasurements of defined benefit plans recognised in other comprehensive income	28	896	- 525
Deferred taxes on remeasurements of defined benefit plans	15	- 231	156
		665	**- 369**
Other comprehensive income before income taxes		**- 9,330**	**- 20,375**
Income taxes on other comprehensive income		**474**	**159**
Other comprehensive income, net of income taxes		**- 8,856**	**- 20,216**
attributable to non-controlling interest		262	- 539
attributable to owners of the parent		- 9,118	- 19,677
Total comprehensive income for the period		**159,122**	**87,386**
attributable to non-controlling interest		1,466	- 680
attributable to owners of the parent		157,656	88,066

CONSOLIDATED STATEMENT OF FINANCIAL POSITION AS OF 31.12.2018

Assets **in EUR '000**	**Note**	**31.12.2018**	**31.12.2017**
Goodwill	16	269,469	285,903
Other intangible assets	16	165,235	197,116
Property, plant and equipment	17	361,001	324,703
Reparable aircraft spare parts		542	800
Other financial assets	21	61,166	69,089
Investments accounted for using the equity method	20	227,025	155,622
Trade and other receivables	22	5,142	4,364
Deferred tax assets	15	14,699	15,314
Non-current assets		**1,104,279**	**1,052,911**
Inventories	24	153,571	139,465
Trade and other receivables	22	419,464	805,758
Other financial assets	21	18,005	83,488
Income tax receivables	15	9,193	18,803
Contract assets	23	289,695	-
Cash and cash equivalents	25	559,309	187,371
		1,449,237	1,234,885
Assets held for sale	26	-	9,388
Current assets		**1,449,237**	**1,244,273**
Total assets		**2,553,516**	**2,297,184**

CONSOLIDATED STATEMENT OF FINANCIAL POSITION AS OF 31.12.2018

Equity and liabilities in EUR '000	Note	31.12.2018	31.12.2017
Equity attributable to owners of the parent *	27	1,134,876	1,136,719
Non-controlling interest	27	44,030	55,980
Equity	27	**1,178,906**	**1,192,699**
Provisions for pensions	28	45,769	42,826
Provisions for income taxes	29	378	375
Other provisions	29	6,991	7,091
Financial liabilities	30	222,378	88,161
Trade and other payables	31	9,049	9,499
Deferred tax liabilities	15	76,104	81,797
Contract liabilities	23	64,885	-
Non-current liabilities		**425,554**	**229,749**
Provisions for income taxes	29	5,254	7,447
Other provisions	29	28,547	22,336
Financial liabilities	30	435,351	300,861
Trade and other payables	31	341,305	527,180
Income tax liabilities	15	9,193	14,293
Contract liabilities	23	129,406	-
		949,056	872,117
Liabilities associated with assets held for sale	26	-	2,619
Current liabilities		**949,056**	**874,736**
Total equity and liabilities		**2,553,516**	**2,297,184**

* Regarding the information of issued capital and reserves please refer to the statement of changes in equity.

STATEMENT OF CHANGES IN EQUITY AS OF 31.12.2018

	Equity attributable to owners of the parent									
				Other comprehensive income						
in EUR '000	Share capital	Capital reserve	Retained earnings incl. profit or loss	Currency transla-tion differ-ences	Cash flow hedg-es	Fair value of available-for-sale financial assets	Remea-sure-ments of defined benefit plans	Total	Non-control-ling interest	Equity
Balance as of 1st January 2017	**15,000**	**629,168**	**523,724**	**- 10,610**	**-**	**886**	**- 3,351**	**1,154,817**	**5,467**	**1,160,284**
Equity transactions with shareholders										
Changes in the scope of consolidation	-	-	- 9,694	- 272	-	-	-	- 9,966	52,898	42,932
	-	-	- 2,580	-	-	-	-	- 2,580	- 1,672	- 4,252
Dividend payments	-	-	- 93,600	-	-	-	-	- 93,600	- 33	- 93,633
Other changes	-	-	- 18	-	-	-	-	- 18	-	- 18
	-	-	- 105,892	- 272	-	-	-	- 106,164	51,193	- 54,971
Total comprehensive income for the period										
Other comprehensive income, net of income taxes 2017	-	-	-	- 19,056	-	- 468	- 153	- 19,677	- 539	- 20,216
Profit or loss 2017	-	-	107,743	-	-	-	-	107,743	- 141	107,602
	-	-	107,743	- 19,056	-	- 468	- 153	88,066	- 680	87,386
Balance as of 31 December 2017	**15,000**	**629,168**	**525,575**	**- 29,938**	**-**	**418**	**- 3,504**	**1,136,719**	**55,980**	**1,192,699**
Balance as of 31 December 2017	**15,000**	**629,168**	**525,575**	**- 29,938**	**-**	**418**	**- 3,504**	**1,136,719**	**55,980**	**1,192,699**
Restatement IFRS 9 / 15 *	-	-	220	-	-	- 418	-	- 198	- 52	- 250
Balance as of 1st January 2018	**15,000**	**629,168**	**525,795**	**- 29,938**	**-**	**-**	**- 3,504**	**1,136,521**	**55,928**	**1,192,449**
Equity transactions with shareholders										
Acquisition of non-controlling interest	-	-	- 13,255	-	-	-	-	- 13,255	- 6,897	- 20,152
Profit transfer to shareholders / dividend payments	-	-	- 146,046	-	-	-	-	- 146,046	- 6,467	- 152,513
	-	-	- 159,301	-	-	-	-	- 159,301	- 13,364	- 172,665
Total comprehensive income for the period										
Other comprehensive income, net of income taxes 2018	-	-	-	- 8,089	- 1,645	-	616	- 9,118	262	- 8,856
Profit or loss 2018	-	-	166,774	-	-	-	-	166,774	1,204	167,978
	-	-	166,774	- 8,089	- 1,645	-	616	157,656	1,466	159,122
Balance as of 31 December 2018	**15,000**	**629,168**	**533,268**	**- 38,027**	**- 1,645**	**-**	**- 2,888**	**1,134,876**	**44,030**	**1,178,906**

* Please refer to the disclosures in chapter 2.2. of the notes to the interim consolidated financial statements.

CONSOLIDATED STATEMENT OF CASH FLOWS 2018

in EUR '000	Note	2018	2017
Income before interest, dividends and income taxes	32	219,781	156,777
Income taxes paid	15	- 38,931	- 41,934
Interest paid		- 20,978	- 19,196
Interest received		4,194	4,372
Dividends received		10,557	19,996
Depreciation and amortisation / write-ups of assets		124,374	79,558
Change in provisions		10,713	- 2,855
Other non-cash transactions		- 8,957	1,841
Result from the disposal of property, plant and equipment		- 910	- 1,660
Result from the disposal of securities		- 462	- 1,240
Result from the disposal / deconsolidation of consolidated subsidiaries	5	- 156,494	- 71,961
Change in other assets		71,530	- 63,622
Change in other liabilities		11,248	29,480
Cash flow from operating activities		**225,665**	**89,556**
Investments in intangible assets	16	- 11,779	- 12,124
Proceeds from the disposal of intangible assets		31	1,631
Investments in property, plant and equipment	17	- 120,550	- 66,598
Proceeds from the disposal of property, plant and equipment		14,888	8,815
Investments in financial assets / associates		- 93,966	- 179,258
Proceeds from the disposal of financial assets		86,811	122,521
Cash inflow from the acquisition of consolidated subsidiaries	5	-	14,648
Cash inflow (previous year: cash outflow) from the disposal of consolidated subsidiaries	5	212,495	116,492
Cash flow from investing activities		**87,930**	**6,127**
Payments to shareholders		- 6,467	- 93,633
Payments for the acquisition of non-controlling interest	27	- 20,152	- 4,284
Repayments of finance lease liabilities		- 17,904	- 12,883
Proceeds from bank loans		609,139	106,598
Repayments of bank loans		- 503,363	- 104,163
Cash flow from financing activities		**61,253**	**- 108,365**
Change in cash and cash equivalents		374,848	- 12,682
Effect of changes in exchange rates		- 2,910	- 10,401
Cash and cash equivalents at the beginning of the period		187,371	210,454
Cash and cash equivalents at the end of the period	25	**559,309**	**187,371**

Notes to the consolidated financial statements 2018

Contents

1. General information

ATON GmbH (ATON GmbH or the "Company") has its registered office in Leopoldstraße 53, 80802 Munich, Germany, and is registered at the Munich Local Court under the registration number HRB 193331.

ATON GmbH and its subsidiaries (collectively, the "Group") are organised on a global basis and operate on all continents with core activities in the defined business segments of AT Engineering, AT Mining, AT Med Tech and AT Aviation.

The consolidated financial statements of ATON GmbH as of 31 December 2018 have been prepared in accordance with Section 315e of the German Commercial Code (Handelsgesetzbuch, "HGB") and the provisions of the International Financial Reporting Standards (IFRSs) issued by the International Accounting Standards Board (IASB), London, applicable on the reporting date and as adopted by the European Union, and with the interpretations of the International Financial Reporting Interpretations Committee (IFRIC).

The annual financial statements of ATON GmbH, which were certified with an unqualified auditor’s report by Deloitte GmbH Wirtschaftsprüfungsgesellschaft, Munich, and the consolidated financial statements of ATON GmbH are submitted to the operator of the Federal Gazette. The consolidated financial statements of ATON GmbH for the financial year 2018 were authorised for publication by a management resolution on 29 April 2019. Under the relevant statutory provisions, the shareholders still have the option in theory of making changes to the financial statements. Dr. Lutz Helmig exercises control over the Group.

The consolidated financial statements are prepared in Euro. Unless indicated otherwise, all amounts are rounded up or down to the nearest k EURO in accordance with normal commercial practice. Rounding may give rise to rounding differences of +/- EUR 1k.

The financial year corresponds to the calendar year.

Individual items in the income statement and the statement of comprehensive income, the statement of financial position, the statement of cash flows and the statement of changes in equity of the ATON Group have been combined in order to achieve greater clarity. Full details are given in the notes to the financial statements. The income statement has been prepared in accordance with the nature of expense method. The statement of financial position is classified by the maturity of the assets and liabilities. Assets and liabilities are treated as current if they are due within one year or within the normal business cycle of the company or of the Group, or if they are intended to be sold. Deferred tax assets and liabilities are principally presented as non-current, as are provisions for pensions.

2. Basis of preparation of the consolidated financial statements

2.1. General principles

The financial statements of the domestic and foreign subsidiaries included in the consolidated financial statements are prepared in accordance with the accounting policies that are consistently applied throughout the ATON Group. The financial statements of the subsidiaries included in the consolidated financial statements are prepared as of the reporting date of the consolidated financial statements.

The consolidated financial statements are prepared on the basis of historical acquisition and production costs, with the exception of items reported at their fair values, such as derivative financial instruments, available-for-sale financial assets and plan assets in connection with pension obligations.

2.2. Application of new, amended and revised standards

The accounting policies adopted are consistent with those of the previous financial year except as described below.

Accounting standards applied on a mandatory basis for the first time during the current financial year

The Group has applied all accounting pronouncements adopted by the EU and required to be applied as from 1 January 2018. The Group has not early adopted any other standard, interpretation or amendment that has been issued but is not yet effective.

New and amended standards and interpretations

IFRS 9 “Financial Instruments”

As of 1 January 2018, the ATON Group has applied the regulations of IFRS 9 "Financial Instruments" as well as the consequential changes to other standards. In particular, IFRS 9 contains new rules on the classification, measurement and impairment of financial instruments and hedge accounting. The provisions for initial recognition and derecognition of a financial asset / financial liability have been restated only marginally in IFRS 9. The ATON Group is not affected by this change. The ATON Group applies the provisions of IFRS 9 retrospectively. However, in line with the transition provisions of IFRS 9, no adjustment is made to the comparative period. Valuation adjustments resulting from the first-time application of the new standard are recognised directly in equity within the revaluation reserve.

The following sections address the impact of the first-time application of IFRS 9 on the ATON Group.

Classification and measurement (without impairment) – financial assets

IFRS 9 contains three measurement categories: 1) amortised cost, 2) at fair value through other comprehensive income and 3) at fair value through profit or loss. The classification and measurement of financial assets (financial instruments) that are not equity instruments depends on two factors that are to be examined at the moment of acquisition (and in the case of first-time adoption of IFRS 9 on transition): the business model for the financial asset and the cash flow conditions of the instrument. A valuation at amortised cost is appropriate, provided that the cash flows of the instrument consist only of interest payments on the nominal amount and repayments (cash flow criterion) and the instrument is held with the purpose of realising the contractual cash flows ("hold" business model). If the cash flow criterion is met and the instrument is held under a business model that realises the cash flows from the instrument through holding to maturity and through sales ("hold or sell" business model), a fair value measurement is made through other comprehensive income. If the cash flow criterion is not met or for all business models other than "hold" or "hold or sell", the instrument must be measured at fair value through profit or loss.

A reclassification of a financial asset between the measurement categories of IFRS 9 requires a change in the business model for each group of instruments. Such a change is expected to be very infrequent in practice and will occur only if: 1) determined by the entity's senior management as a result of external or internal changes, 2) the change is significant to the operations and 3) be demonstrable to external parties.

Loans, trade receivables and other receivables as well as contract assets under IFRS 15 of the ATON Group fulfil the cash flow criterion. The instruments are held in a business model that aims to realise the cash flows by holding the instruments to final maturity. For this reason, valuation continues to be carried out at amortised cost, taking into account the effective interest method.

Investments in equity instruments do not meet the cash flow criterion due to the intrinsic leverage effect of price fluctuations. These instruments are generally to be measured at fair value through profit or loss. The ATON Group will not make use of the option of measuring investments in equity instruments at fair value through other comprehensive income (FVTOCI) in the future.

Unchanged to IAS 39, financial assets continue to be measured at fair value upon initial recognition. All financial assets that are not classified as at fair value through profit or loss also include the transaction costs that are directly attributable to the acquisition of the asset.

All customary purchases and sales of financial assets continue to be recognised at the trading day under IFRS 9, i.e. at the date on which the Group entered into the obligation to purchase or sell the asset.

The first-time application of the regulations for classification and measurement of financial assets in accordance with IFRS 9 had the following effects on the Group:

- The other investments within the consolidated financial statements were classified as available for sale under IAS 39 and measured at amortised cost. These other investments are now recognised at fair value through profit or loss and the remeasurement amount is recognised directly in equity within retained earnings.

- The securities within the consolidated financial statements, which were classified as available-for-sale (AfS) and measured at fair value through other comprehensive income under IAS 39, are now measured at fair value through profit or loss in accordance with IFRS 9 due to the active management of the portfolio and the non-fulfilment of the cash flow criterion. The remeasurement amount is recognised directly in equity within retained earnings.

For a tabular presentation of the effects resulting from the first-time application of IFRS 9, please refer to the end of this chapter.

Classification and measurement (without impairment) – financial liabilities

Financial liabilities continue to be classified either as financial liabilities at fair value through profit or loss or as other financial liabilities measured at amortised cost. The classification of financial liabilities in accordance with IFRS 9 had no effect on the ATON Group.

Financial liabilities are measured at fair value on initial recognition, as under IAS 39. The transaction costs directly attributable to the acquisition will continue to be recognised for all financial liabilities that are not subsequently measured at fair value through profit or loss. Financial guarantees issued are subsequently not measured at fair value through profit or loss but at the higher of: 1) the amount resulting from the application of the impairment requirements from IFRS 9 or 2) the amount originally recognised.

Impairment

IFRS 9 is a departure from the model of losses incurred in IAS 39 to the model of expected future losses. In order to recognise changes in default risk since the initial recognition of a financial asset, the Group adjusts the expected future losses as part of risk provisioning at each reporting date. This means, that a so-called loss event that triggers impairment, as required by IAS 39, is no longer required to recognise impairment losses on financial assets.

IFRS 9 distinguishes between three levels when measuring expected losses. The expected future losses on a financial asset are measured on the basis of one of the following three measures:

- the "expected 12-month loss" (present value of expected credit losses resulting from possible default events within the next 12 months after the balance sheet date) - level 1;

- the total expected credit loss over the remaining life of the financial instrument (present value of expected credit losses due to all possible default events over the remaining term of the financial instrument), whereby the gross book value is still the basis for the effective interest rate - level 2;

- or the total expected credit loss over the remaining life of the instrument (present value of expected credit losses due to all possible default events over the remaining life of the financial instrument), whereby the net book value is the basis for the effective interest rate - level 3.

For trade receivables and contract assets within the scope of IFRS 15, which do not contain a significant financing component under IFRS 15, IFRS 9 provides a simplified impairment approach for measuring expected credit losses. The simplified impairment approach is, for reasons of practicability, also applicable to contracts for which it is reasonable expected according to IFRS 15, that they do not contain a significant component of financing based on a maximum duration of the contract of one year.

Due to the short duration of these financial instruments, the simplified impairment approach requires a direct recording of the expected credit losses over the entire residual term. These financial instruments are therefore directly attributable to level 2 of the impairment model (unless they are already impaired when they are issued, which would lead to an allocation to level 3).

In the case of a significant financing component for trade receivables and contract assets within the scope of IFRS 15, IFRS 9 gives the option of applying the simplified impairment approach for measuring expected credit losses. This option can also be applied to lease receivables. However, the ATON Group does not apply this option to lease receivables because the lease receivables are recognised under other receivables.

The ATON Group makes use of the option regarding the simplified impairment approach to measure the lifetime expected credit losses. For loans and other receivables, however, expected credit losses are recognized under the general 3-step model.

Increase of default risk

The loss recognition of the lifetime expected credit losses is obligatory for financial instruments whose default risk has significantly increased since initial measurement (level 2). If there are objective indications of impairment, the asset must be reclassified to level 3 and the loan loss allowance has to be adjusted accordingly.

A significant increase occurs when there is little risk of default, the debtor is highly capable of making his contractually agreed payments, and adverse changes in the economic or business environment may, in the long term, affect the debtor's ability to make contractually agreed payments. The rules also include the rebuttable presumption that the default risk has significantly increased since the instrument's access when contractual payments are overdue for more than 30 days. This rebuttable presumption is used by the ATON Group. In addition, the Group makes use of the simplification for financial assets whose default risk is considered low. It may then be assumed that for financial assets whose default risk is considered low, the default risk has not significantly increased. The ATON Group considers a low default risk to be related to financial assets whose internal or external credit rating falls into the "investment grade" category. This simplified approach applies to loans and other receivables.

In accordance with IFRS 9, a financial asset has objective evidence of impairment if one or more events have occurred that have a significant impact on the expected future cash flows of the financial asset. These objective indications were already relevant under IAS 39. These include, for example, significant financial difficulties of the issuer or the debtor or a breach of contract such as a default or a delay of interest or principal payments. Based on historical experience, a loss of financial assets measured at amortised cost is assumed in the event of various circumstances such as delayed payment over a certain period of time, initiation of coercive measures, threatened insolvency or over-indebtedness, application or initiation of insolvency proceedings or failure of restructuring measures. In addition, the Group uses the rebuttable presumption for loans and other receivables that there are objective indications of impairment at the latest when the contractual payments for an instrument are outstanding for more than 90 days. For trade receivables and contract assets within the scope of IFRS 15, estimates are made on a case-by-case basis. The Group reviews at each balance sheet date whether there are any objective indications for an impairment of a trade receivable / contract asset within the scope of IFRS 15. Receivables and the associated accumulated risk allowances are only derecognised if they are classified as irrecoverable, i.e. no more cash inflows are expected. In this case, the outstanding amount of receivables is adjusted against the risk allowance.

Measurement of expected credit losses

The expected credit loss is a function of the probability of default, the loss given default and the credit exposure at the time of default. Loans and other receivables (general impairment approach) are classified by the ATON Group based on an internal rating scale. This rating scale is as follows:

ATON		**S&P**
Grade	**Description**	**Description**
A	Very good credit rating (investment grade)	AAA-BBB
B	Good to satisfactory credit rating (sub-investment grade)	BBB-BB
C	Credit rating below average	below BB

The default probability for each rating grade is based on the experience of an external rating agency, which is historical data enriched with forward-looking data. These are reviewed annually and, if necessary, adjusted. Based on empirical values, the loss rate in case of default for these financial instruments is calculated to be one hundred percent.

For trade receivables and contract assets within the scope of IFRS 15 (simplified impairment approach), the ATON Group calculates a default rate on the basis of historical default at each reporting date and adjusts it to expected future economic developments based on a 6-month forecast. At the time of the default, the book value is used as an approximation of the outstanding amount within the ATON Group.

The expected credit losses on loans are determined on the basis of the respective financial instrument or for the respective debtor. However, in the case of trade receivables, contract assets in the scope of IFRS 15 and other receivables, an assessment based on the individual debtor / instrument is not possible. For this reason, the expected credit losses for these instruments are determined on a collective basis. Trade receivables and contract assets in the scope of IFRS 15 are grouped for these purposes at the level of the segments, because the segments are the highest possible level at which the ATON Group's customers have common default risk characteristics. The ATON Group regularly reviews grouping and aggregation to ensure that the instruments within each group continue to share common default risk characteristics.

At each reporting date, the Group reviews whether the default risk has significantly increased since the first-time recognition or whether there is objective evidence of impairment. Affected financial assets are reclassified to the respective level of the impairment model accordingly; the valuation of the expected credit loss is also adjusted to the respective level.

Presentation of expected credit losses

Expected credit losses and their changes are reported by the Group in a separate line item in the consolidated income statement.

Hedge Accounting

Since no hedge accounting was used as of 31 December 2017, the application of the new hedge accounting rules for hedge accounting does not result in any transition effect.

Tabular presentation of the effects of IFRS 9

As of 1 January 2018, the Group has analysed its financial assets and liabilities to identify the allocation to the measurement categories. The effects of the first-time application of IFRS 9, which resulted from trade receivables, other receivables and contract assets in the scope of IFRS 15, were recognised in retained earnings directly within equity.

The following overview shows the carrying amounts and classes of assets and liabilities as of 31 December 2017 in accordance with IAS 39 and the reconciliation to the carrying amounts as of 1 January 2018 in accordance with IFRS 9:

in EUR '000	Information according to IAS 39		Transition	Information according to IFRS 9	
	Measurement category under IAS 39	Carrying amount as of 31.12.2017	Reclassification / Revaluation	FVTPL according to classification criteria	Amortised cost according to classification criteria
Assets					
Cash and cash equivalents	LaR	187,371	-	-	187,371
Financial assets at amortised cost					
Loans and Receivables	LaR	49,043	- 92	-	48,951
Trade receivables	LaR	769,539	- 347,150	-	422,389
Other receivables	LaR	4,669	5,570	-	10,239
Contract assets	n/a	-	346,107	-	346,107
Financial assets at fair value through profit and loss					
Securities measured at fair value through profit and loss	FAHfT	82,869	-	82,869	-
Foreign exchange futures	FAHfT	393	-	393	-
Financial assets at fair value through other comprehensive income					
Other investments	AfS	3,639	-	3,639	-
Securities measured at fair value through other comprehensive income	AfS	16,632	-	16,632	-

in EUR '000	Information according to IAS 39		Transition	Information according to IFRS 9	
	Measurement category under IAS 39	Carrying amount as of 31.12.2017	Reclassification / Revaluation	FVTPL according to classification criteria	Amortised cost according to classification criteria
Liabilities					
Financial liabilities at amortised cost					
Trade payables	FLAC	154,597	- 16	-	154,581
Non-convertible bonds	FLAC	200,705	-	-	200,705
Liabilities to banks	FLAC	133,442	-	-	133,442
Other interest-bearing liabilities	FLAC	25,469	- 256	-	25,213
Other liabilities (financial instruments)	FLAC	62,473	- 55,976	-	6,497
Finance lease liabilities	FLAC	26,558	-	-	26,558
Financial liabilities at fair value through profit and loss					
Foreign exchange futures	FLHfT	110	-	110	-
Currency options	FLHfT	317	-	317	-

The following overview shows the reconciliation of financial assets (including risk provisions) in accordance with IAS 39 to those under IFRS 9 as of 1 January 2018:

in EUR '000	Amount according to IAS 39 31.12.2017	Reclassification	Restatement	Amount according to IFRS 9 / IFRS 15 1.01.2018
Loans and Receivables (LaR)	49,043	-	- 92	48,951
Trade receivables (LaR)	769,539	- 346,907	- 243	422,389
Other receivables (LaR)	4,669	5,631	- 61	10,239
Contract assets (IFRS 15)	-	346,135	- 28	346,107
Total	**823,251**	**4,859**	**- 424**	**827,686**

The effects on the individual lines within equity are shown in the statement of changes in equity.

IFRS 15 "Revenue from Contracts with Customers"

The ATON Group applies the provisions of IFRS 15 "Revenue from Contracts with Customers" for the first time as of 1 January 2018. The new standard provides a single, principle-based, five-step model that applies to all contracts with customers. According to the five-step model, the contract with the customer must first be determined (step 1). In step 2, the independent performance obligations are to be identified in the contract. Subsequently (step 3), the transaction price is to be determined, with explicit provisions for the treatment of variable consideration, significant financing components, payments to the customer and barter transactions. After the determination of the transaction price, in step 4 the allocation of the transaction price to the individual performance obligations has to be carried out. This is based on the stand-alone selling prices of each performance obligations. Finally (step 5) the revenue can be recognized, provided the performance obligations have been met. The prerequisite for this is the transfer of the power of disposal of the goods or the service to the customer.

The Group applies the modified retrospective transition to IFRS 15, i.e. the cumulative adjustment amounts will be recognised in equity as of 1 January 2018 and no adjustment is made to the comparative period. The comparative period is reported in accordance with IAS 18 or IAS 11.

The following table shows the main products and services from which the ATON Group's individual business segments generate their revenues. Revenue recognition always takes place over the period of time regarding satisfying the performance obligation, if

- the customer simultaneously receives and consumes the benefits provided by the entity's performance as the entity performs, which is usually the case for services (IFRS 15.35 (a)),
- the customer gains control of the asset while it is being manufactured, typically on the client's property (IFRS 15.35 (b)) or
- the Group cannot prove any alternative use of the asset and at the same time has an enforceable right to payment at any time plus an appropriate margin to the customer (IFRS 15.35 (c)).

In all other cases, revenue is recognised at the time the customer gains control of the asset. This is usually the case when the legal title and the significant risks and rewards have passed to the customer, a payment claim against the customer exists and (in some cases) an acceptance has taken place.

In the individual segments, the revenue recognition is as follows:

Segment AT Engineering:

Products and services	Satisfaction of the performance obligation…			Description
	at a point in time	over a period of time		
		Criteria	Method	
Turnkey contracts		15.35(c)	Input Method	Construction of turn-key production facilities, i.e. planning, production and commissioning of fully linked production facilities. The fulfilment of these performance obligations takes place over a period of time over the respective project duration. Accordingly, revenue is recognised in accordance with the calculated percentage of completion.
contractual labour relationship		15.35(c)	Input Method	Provision of customer-specific technology solutions for various tasks in production and, to a lesser extent, the construction of transport frames for the aviation industry.
Service contracts		15.35(a)	Input Method	The transaction price usually consists of a fixed fee per unit of time.
Customer-specific construction contracts (project-business)		15.35(c)	Input Method	Provision of services and predominantly in so-called customer-specific construction contracts (project business) within the framework of contractual labour relationship. The fulfilment of the performance obligations generally takes place over the period during the duration of the project. Accordingly, revenue is recognised in accordance with the calculated percentage of completion. Characteristic of the customer-specific performance obligations is a close cooperation / coordination with the customers within the individual projects. Repurchase obligations, reimbursement obligations and similar obligations as well as guarantees associated with the performance obligation basically do not exist after final acceptance by the customer.

Segment AT Mining:

Products and services	Satisfaction of the performance obligation…			Description
	at a point in time	over a period of time		
		Criteria	Method	
Bundles of different services in combination with the provision of goods		15.35(a) 15.35(b)	Based on monthly invoicing since this reflects the benefits, which has been transferred to the customer.	In the case of contracts within the segment AT Mining, the Group generally provides a bundle of various services in combination with the provision of goods, which in its entirety constitutes one performance obligation in accordance with IFRS 15 because significant integration services are provided. The services actually provided are billed on a monthly basis so that the relief granted under IFRS 15.B16 can be claimed and that the revenues are recognised on a monthly basis in the amount of the invoice.

Segment AT Med Tech:

Products and services	**Satisfaction of the performance obligation…**			**Description**
	at a point in time	**over a period of time**		
		Criteria	**Method**	
X-ray machines	x			The Group recognises revenues depending on the delivery terms after delivery to the customer or when making available to the customer, since at this point in time the power of disposition is regularly transferred to the customer. Payment by the customer is usually made 30 days after delivery or billing.
Extended warranty		15.35(a)	On the basis of historical values, which represent the benefits for the customer.	The Group offers extended warranty contracts exclusively to foreign customers. The consideration paid by the customer must be paid in advance for the entire contract period. The advance payment minimises the administrative burden on the Group and ensures that customers meet their contractual obligations so that the contracts do not contain any significant financing component. Revenue recognition over the contract period is based on the benefit profile for the customer, which is based on historical data.
Industrial plasma	x			The Group realises revenues when made available to the customer, as the power of disposition is regularly transferred to the customer at this time. The contracts are customary in the industry, so that they do not contain a significant financing component.

Segment AT Aviation:

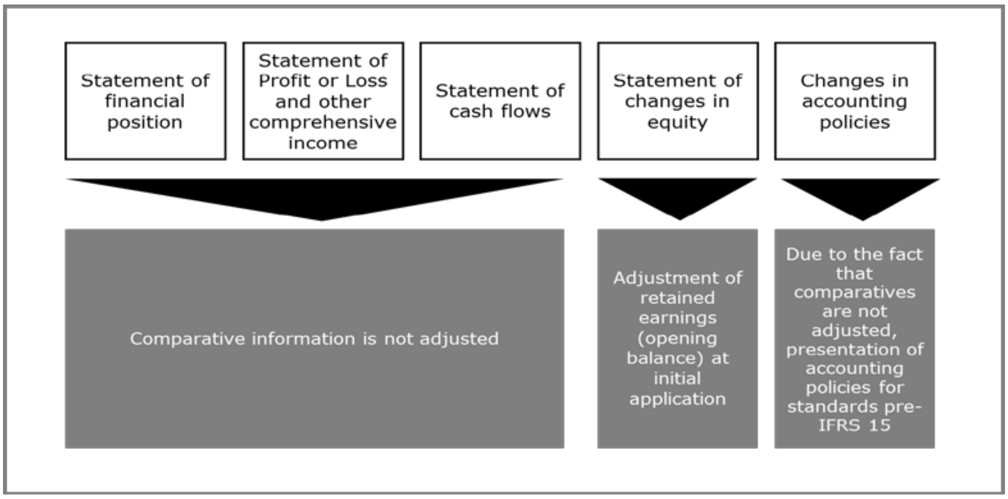
Products and services	**Satisfaction of the performance obligation…**			**Description**
	at a point in time	**over a period of time**		
		Criteria	**Method**	
Aircraft Management		15.35(a)	Output method	In the case of aircraft management contracts, the Group provides a bundle of services, which in its entirety constitutes one performance obligation in accordance with IFRS 15. The services actually provided are billed on a monthly basis so that the relief granted under IFRS 15.B16 can be claimed and that the revenues are realised on a monthly basis in the amount of the invoice.

The ATON Group has made use of the following practical reliefs:

At the date of initial recognition, only such contracts not yet completed prior to the date of initial application of the new standard are accounted for under the new standard, or the new standard is applied to all existing contracts with customers at the time of initial application (IFRS 15.C7, C7A). ATON has decided to only account for contracts in accordance with IFRS 15 that were not fully completed before 1 January 2018.

If a contract amendment within the meaning of IFRS 15 occurs before 1 January 2018, it can be waived to adjust the accounting for each individual contracts affected, retrospectively. Rather, the aggregated (and not the individual) effect of the contract amendments can be adjusted regarding identifying the satisfied and unsatisfied performance obligations, determining the transaction price and allocating to the transaction price to the satisfied and unsatisfied performance obligations. ATON has decided to make use of this relief.

The use of the modified retrospective method has the following effects on the presentation of the financial statements:



The quantitative effects of the first-time application of IFRS 9 and IFRS 15 are as follows:

in EUR '000	Closing Balance As reported 31.12.2017	Effects of initial application of new standards IFRS 9	IFRS 15	Opening Balance Adjusted 1.01.2018
Assets				
Goodwill	285,903	-	-	285,903
Intangible assets	197,116	-	-	197,116
Tangible assets	324,703	-	-	324,703
Repairable aircraft spare parts	800	-	-	800
Other financial assets	69,089	-92	-	68,997
Companies accounted for using the equity method	155,622	-	-	155,622
Deferred tax assets	15,314	121	-	15,435
Trade and other receivables	4,364	-	-	4,364
Contract assets	0	-	-	0
Non-current assets	**1,052,911**	**29**	**0**	**1,052,940**
Inventories	139,465	-	1,567	141,032
Trade and other receivables	805,758	-355	-346,721	458,682
Other financial assets	83,488	-	-	83,488
Income tax receivables	18,803	-	-	18,803
Contract assets	0	-18	346,125	346,107
Cash and cash equivalents	187,371	-	-	187,371
Assets of disposal group classified as held for sale	9,388	-	-	9,388
Current assets	**1,244,273**	**-373**	**971**	**1,244,871**
Total assets	**2,297,184**	**-344**	**971**	**2,297,811**

in EUR '000	Closing Balance As reported 31.12.2017	Effects of initial application of new standards		Opening Balance Adjusted 1.01.2018
		IFRS 9	IFRS 15	
Equity and liabilities				
Share capital	15,000	-	-	15,000
Capital reserve	629,168	-	-	629,168
Revenue reserves	525,575	112	108	525,795
Other comprehensive income	-33,024	-418	-	-33,442
Non-controlling interest	55,980	-34	-18	55,928
Equity	**1,192,699**	**-340**	**90**	**1,192,449**
Provisions for pensions	42,826	-	-	42,826
Provisions for income taxes	375	-	-	375
Other provisions	7,091	-	-	7,091
Financial liabilities	88,161	-	-	88,161
Trade payables and other liabilities	9,499	-	-1,128	8,371
Deferred tax liabilities	81,797	-4	29	81,822
Contract liabilities	0	-	47,025	47,025
Non-current liabilities	**229,749**	**-4**	**45,926**	**275,671**
Provisions for income taxes	7,447	-	-	7,447
Other provisions	22,336	-	4,740	27,076
Financial liabilities	300,861	-	-	300,861
Trade payables and other liabilities	527,180	-	-227,271	299,909
Income tax liabilities	14,293	-	-	14,293
Contract liabilities	0	-	177,486	177,486
Liabilities of disposal group classified as held for sale	2,619	-	-	2,619
Current liabilities	**874,736**	**0**	**-45,045**	**829,691**
Total equity and liabilities	**2,297,184**	**-344**	**971**	**2,297,811**

Without application of IFRS 15, the income statement for the period from 1 January to 31 December 2018 would be as follows:

in EUR '000	Figures as reported (under application of IFRS 15) 2018	Effects of initial application of new standard IFRS 15 2018	Figures if IFRS 15 would not have been applied 2018
Revenue	2,461,602	-98	2,461,504
Changes in inventories / own work capitalized	5,387	1,695	7,082
Other operating income	211,648	2	211,650
Cost of materials	-892,370	-1,507	-893,877
Personnel expenses	-1,094,259	-	-1,094,259
Impairment losses (including reversal of impairment losses or impairment gains from the use of expected future credit loss model)	-3,444	-19	-3,463
Depreciation and amortisation	-109,880	-	-109,880
Other operating expenses	-357,817	19	-357,798
Earnings before interest and taxes (EBIT)	**220,867**	**92**	**220,959**
Result from companies accounted for under the equity method	14,155	-	14,155
Other investment result	-25	-	-25
Interest income	4,702	-	4,702
Interest expenses	-23,643	-	-23,643
Other financial income and expenses	-12,994	-	-12,994
Net financial result	**-17,805**	**0**	**-17,805**
Earnings before income taxes (EBT)	**203,062**	**92**	**203,154**
Income taxes	-35,084	-21	-35,105
Profit or loss for the period (EAT)	**167,978**	**71**	**168,049**

New and amended standards and interpretations not applied

Standards/ amendments		EU Endorsement	Mandatory application*[1]	Expected effect
IFRS 16	Leases	Yes	01.01.2019	Effects are currently being examined [2]
IFRIC 23	Uncertainty over Income Tax Treatment	Yes	01.01.2019	No material effects
Amendments to IAS 28	Long-term Interest in Associates and Joint Ventures	Yes	01.01.2019	No material effects
	Annual Improvements to International Financial Reporting Standards (2015 - 2017)	Yes	01.01.2019	No material effects
Amendments to IAS 19	Plan Amendment, Curtailment or Settlement	Yes	01.01.2019	No material effects
Amendments to IFRS 9	Prepayment Features with Negative Compensation	Yes	01.01.2019	No material effects
	Amendments to References to the Conceptual Framework in IFRS Standards	No	01.01.2020	Effects are currently being examined
Amendments to IFRS 3	Amendments to IFRS 3 regarding the definition of a business	No	01.01.2020	No material effects
Amendments to IAS 1 and IAS 8	Definition of Materiality	No	01.01.2020	No material effects
IFRS 17	Insurance Contracts	No	01.01.2021	No effects expected

* Mandatory application in accordance with IFRSs for financial years beginning on or after the given date

[1] In accordance with section 315e HGB, application is not mandatory for standards and interpretations that have not yet been endorsed by the EU.

[2] IFRS 16 „Leases“

The ATON Group applies the provisions of IFRS 16 "Leases" for the first time as of 1 January 2019. The standard contains a comprehensive model for identifying lease agreements and accounting for lessors and lessees. The provisions of IFRS 16 are applied modified retrospectively within the Group, i.e. the cumulative adjustment amounts will be recognized as retained earnings in equity as of 1 January 2019 and the comparative period is not restated. The comparative period is therefore reported in accordance with IAS 17 and IFRIC 4.

Identifying a lease

At inception of a contract, it must be assessed whether a contract is or contains a lease. This is the case if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

In the transition to IFRS 16, the Group makes use of the practical relief of IFRS 16.C3, which permits that for all existing contracts at the transition date, no new reassessment has to be made as to whether an arrangement is a lease or not. The Group applies the new lease definition to all agreements that are closed or modified on or after 1 January 2019.

The Group as lessee

For lessees, the previous distinction between operating leases and finance leases is eliminated. Instead, the lessee has to recognize the right-of-use of a leased asset (so-called right-of-use asset) and a corresponding lease liability for all leases in accordance with IFRS 16. An exception is short-term leases with a maximum term of 12 months and leases where the underlying asset is of low value. The lease payments resulting from these leases are recognised in the Group as an expense on a straight-line basis over the term of the lease.

The accounting for leases that are not subject to the exemptions / practical expedients is set out below. RoU assets are valued at cost at the commencement date. These costs comprise the amount of the lease liability initially recognised plus any lease payments made at or before the commencement date, plus any initial direct costs and estimated costs of dismantling and eliminating the underlying asset less any lease incentives received. In subsequent periods, RoU assets are generally measured at amortised cost. If the lease transfers ownership of the underlying asset to the lessee by the end of the lease term or if the cost of the right-of-use asset reflects that the lessee will exercise a purchase option, the lessee shall depreciate the right-of-use asset from the commencement date to the end of the useful life of the underlying asset. Otherwise, the lessee shall depreciate the right-of-use asset form the commencement date to the earlier of the useful life of the right-of-use asset or the end of lease term.

At the commencement date of the lease, the Group measures the lease liabilities at the present value of the lease payments not yet paid. The lease payments are discounted using the interest rate implicit in the lease. If this rate cannot be readily determined, the Group uses the incremental borrowing rate. As part of the subsequent valuation, the book value of the lease liability is increased to reflect interest using the interest rate used for discounting and reduced by the lease payments made.

Leasing liabilities are remeasured,

- if there is a change in the estimated amounts expected to be payable under residual value guarantees;
- if future lease payments change as a result of a change in an index or interest; or
- if the Group's assessment changes with respect to purchase options, extension options or cancellation options.

If the lease liability is remeasured on the basis of one of the aforementioned reasons, the adjustment is recognised against the right-of-use asset. If the carrying amount of the right-of-use asset is zero, the adjustment is recognized in profit or loss.

The ATON Group applies IFRS 16 modified retrospectively.

For leases classified as **finance leases** applying IAS 17, the carrying amount of the right-of-use asset and lease liability remain unchanged during the transition to IFRS 16 as of 1 January 2019 compared to the carrying amounts in accordance with IAS 17 as of 31 December 2018.

For leases classified as **operating leases** applying IAS 17, the Group has made use of the following practical expedients:

- Use of the short-term lease exemption for all leases with a remaining term of less than 12 months as of 1 January 2019,
- Use of the exemption for low value asset leases,
- Regarding the valuation of the right-of-use asset initial direct costs are excluded from the measurement of the right-of-use asset on transition,
- Application of a single discount rate to a portfolio of leases with reasonably similar characteristics,
- No impairment test. Instead, the right-of-use asset as of 1 January 2019 will be adjusted by the amount of the provision for onerous leases as of 31 December 2018,
- Use of hindsight.

The lease liabilities recognised as of 1 January 2019 are measured at the present value of the remaining lease payments, discounted at the interest rate implicit in the lease applicable at that time. The Group has decided on the basis of the individual lease,

- whether the right-of-use asset is recognised in the amount of the lease liability or
- at the book value that would have resulted, had IFRS 16 been applied since the beginning of the lease.

As of 1 January 2019 the Group expects to recognise additional right-of-use assets and lease liabilities of around EUR 200 million from the initial application of the standard. The equity ratio will thus fall by about 3 %. The application of IFRS 16 will lead to an improvement in the earnings before interests and taxes (EBIT) from 2019 onwards, while the financial result will decrease in the opposite direction. Overall, we do not expect any material impact on the profit or loss for the period (EAT).

The Group as a lessor

For lessors, the accounting principle known from IAS 17 “Leases” remains fundamentally unchanged making a distinction between finance and operating leases. The criteria catalogue for the assessment of a finance lease was adopted unchanged from IAS 17. For the Group as a lessor, this means that there are basically no effects regarding the accounting for leases. Sub-leases are an exception. Interim lessors classify the sub-lease as a finance or operating lease in respect of the right of use arising from the principal lease. In other words, under IFRS 16, the intermediate lessor treats the right-of-use asset as the underlying asset of the sublease rather than the underlying leased asset by the principal lessor. This change did not have any impact on the Group.

2.3. Scope of consolidation and consolidation principles

The shareholdings of the ATON Group comprise subsidiaries, associates and joint ventures.

Subsidiaries

In addition to ATON GmbH, the consolidated financial statements include all material subsidiaries. Subsidiaries are all entities over which the Group has control. The Group controls an entity when the Group is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

Subsidiaries are fully consolidated from the date on which the Group gains control. When the control ceases, the Group deconsolidates the subsidiary as of this date.

All business combinations are accounted for using the acquisition method. The cost of a business acquisition is measured according to the fair values of the assets acquired and the liabilities entered into or assumed at the date of the acquisition. Acquisition-related costs are recognised as expenses at the date when they are incurred. The identifiable assets acquired in a business combination and the liabilities assumed are measured at their fair value at the date of acquisition, irrespective of the extent of any non-controlling interest in equity. Non-controlling interest is measured either at its fair value (full goodwill method) or at its proportionate share of the fair value of the assets acquired and liabilities assumed. The amount by which the total of the cost of the acquisition, the amount of the non-controlling interest in the business acquired and the fair value of any previously held equity interest at the date of acquisition exceeds the Group's share of the net assets measured at fair value is recognised as goodwill. If the cost of the acquisition is lower than the fair value of the net assets of the subsidiary acquired, the difference is recognised directly in the income statement.

After initial recognition, profits and losses are attributed on an unlimited basis in proportion to the shareholdings, which may also result in a negative balance for non-controlling interest.

Any contingent consideration to be transferred by the Group is recognised at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration that is deemed to be an asset or liability are measured and a resulting profit or loss is recorded in the income statement.

In cases where business acquisitions are achieved in stages, the equity share acquired before is remeasured at the fair value at the acquisition date. Transactions not resulting in a loss of control are recorded as equity transactions with no effect on profit or loss for non-controlling interest. At the date on which control is lost, all remaining shares are remeasured at their fair value through profit or loss.

Intercompany profit or losses and income, expenses arising from transactions within the scope of consolidation are eliminated, as are receivables and liabilities existing between consolidated companies. Unrealised gains and losses in non-current assets and in inventories arising from intra-Group transactions are removed. Consolidation entries with effect on profit or loss are recorded together with the related deferred tax effect.

Transactions with non-controlling interest that do not result in loss of control are accounted for as equity transactions – that is, as transactions with the owners in their capacity as owners. The difference between the fair value of any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary resulting from the acquisition of a non-controlling interest is recorded in equity. Gains or losses on disposals to non-controlling interest are also recorded in equity.

When the Group ceases to have control any retained interest in the entity is remeasured to its fair value at the date when control is lost, with the change in carrying amount recognised in profit or loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognised in other comprehensive income in respect of that entity are accounted for as if the Group had directly disposed of the related assets or liabilities. This may mean that amounts previously recognised in other comprehensive income are reclassified to profit or loss.

Associates

The ATON Group accounts for investments in associates using the equity method.

An associate is an entity over which the Group has significant influence but not control, and which is not an interest in a joint venture. Excluded are investments in associates, which are accounted for under IFRS 5 as non-current assets held for sale and discontinued operations.

Based on the acquisition cost at the time of acquiring the shares in an associate, the relevant book value of the participation is increased or reduced to take account of the proportional profits or losses, reduced by dividends received by the ATON Group and movements in other comprehensive income as are allocable to the ATON Group. Goodwill arising from the acquisition of an associate is included in the book value of the investment and is not amortised; rather it is tested for impairment as part of the overall investment in the associate.

If the ATON Group's share of losses of an investment accounted for using the equity method equals or exceeds its interest in the associate, no further losses are recognised, unless the Group has incurred legal or constructive obligations or made payments on behalf of the associate.

Unrealised intercompany profits and losses resulting from transactions by the Group companies with associates are eliminated proportionally in the profit or loss of the Group.

The Group tests at each reporting date whether there is any objective evidence that an impairment loss must be recognised in profit and loss regarding an investment accounted for using the equity method. If such evidence exists, the Group calculates the impairment loss as the difference between the book value and the recoverable amount.

Joint arrangements

Under IFRS 11 investments in joint arrangements are classified as either joint operations or joint ventures depending on the contractual rights and obligations. The ATON Group has assessed the nature of its joint arrangements and determined them to be joint ventures. Joint ventures are accounted for using the equity method. Regarding the accounting companies using the equity method please refer to the explanations for associated companies.

The companies included in the consolidated Group as of 31 December 2018 are as follows:

	Germany	International	Total	31.12.2017
Fully consolidated companies	25	88	113	114
Associates	0	1	1	1
Joint ventures	12	7	19	12
Companies within the scope of consolidation	**37**	**96**	**133**	**127**

For a complete overview, please refer to the list of shareholdings.

Investments of minor significance are recognised at the lower of their respective acquisition cost or fair value and are not consolidated. Companies are classified to be of minor significance if their cumulated share of revenue, annual results and total assets amount to less than 1 % of consolidated revenue, annual result and total assets, and therefore, they are not relevant for the presentation of a true and fair view of the Group's net assets, financial position, and profit or loss, as well as its cash flows.

The following domestic subsidiaries, having the legal form of a corporation or of a partnership within the meaning of Section 264a of the German Commercial Code (Handelsgesetzbuch, "HGB"), have satisfied the necessary conditions in accordance with Section 264 (3) and Section 264b HGB for making use of the exemption provision and therefore do not publish their annual financial statements either:

Name of company	Registered office
EDAG Productions Solutions GmbH & Co. KG	Fulda
FFT Produktionssysteme GmbH & Co. KG	Fulda
Reform Maschinenfabrik Adolf Rabenseifner GmbH & Co. KG	Fulda

2.4. Currency translation

The consolidated financial statements are prepared in Euro, the reporting currency of ATON GmbH. The functional currency of the subsidiaries is generally the same as the company's respective national currency since the subsidiaries run their operations independently from a financial, economic and organisational point of view.

Foreign currency transactions in the separate financial statements of the Group companies are translated into the functional currency using the exchange rates at the transaction date. At each reporting date, monetary assets and liabilities whose amount is expressed in a foreign currency are translated at the closing rate. Non-monetary assets and liabilities measured at fair value and whose amount is expressed in a foreign currency are translated at the date on which the fair value is determined. Currency translation gains and losses are recorded in profit or loss. An exception is made in the case of currency translation differences relating to non-monetary assets and liabilities. Changes in whose fair values are recognised directly in equity.

The earnings and balance sheet items of all Group companies with a functional currency other than the Euro are translated into Euro as the reporting currency. The assets and liabilities of the relevant Group companies are translated at the closing rate. Items of income and expenses are translated at average exchange rates for the period. Components of equity are translated at historical rates at the respective dates at which they were initially recognised from the point of view of the Group.

Differences arising with respect to the translation at closing rates are reported separately in equity and in the disclosures in the notes under "Currency translation". Currency translation differences recorded directly in equity while the subsidiary forms part of the Group are reclassified to profit or loss when the subsidiary leaves the scope of consolidation.

Goodwill and fair value adjustments arising from the acquisition of a foreign company are treated as assets and liabilities of the foreign company and translated at the closing rate.

The most important exchange rates for the translation of the financial statements in foreign currencies in relation to the Euro have developed as follows (in each case for 1 EUR):

Country	Currency		2018		2017	
	Units per Euro		Closing rate	Average rate	Closing rate	Average rate
Australia	Dollar	AUD	1.6220	1.5797	1.5346	1.4732
Brazil	Real	BRL	4.4440	4.3085	3.9729	3.6054
China	Renminbi	CNY	7.8751	7.8081	7.8044	7.6290
United Kingdom	Pound	GBP	0.8945	0.8847	0.8872	0.8767
India	Rupee	INR	79.7298	80.7332	76.6055	73.5324
Japan	Yen	JPY	125.8500	130.4000	135.0100	126.7100
Canada	Dollar	CAD	1.5605	1.5294	1.5039	1.4647
Korea	Won	KRW	1,277.9300	1,299.0700	1,279.6100	1,276.7400
Malaysia	Ringgit	MYR	4.7317	4.7634	4.8536	4.8527
Mexico	Peso	MXN	22.4921	22.7054	23.6612	21.3286
Namibia	Dollar	NAD	16.4845	15.5882	14.7995	14.7183
Norway	Krone	NOK	9.9483	9.5975	9.8403	9.3270
Poland	Zloty	PLN	4.3014	4.2615	4.1770	4.2570
Romania	Leu	RON	4.6635	4.6540	4.6585	4.5688
Russian Federation	Ruble	RUB	79.7153	74.0416	69.3920	65.9383
Zambia	Kwacha	ZMW	13.6637	12.3448	11.3574	10.6701
Sweden	Krona	SEK	10.2548	10.2583	9.8438	9.6351
Switzerland	Franc	CHF	1.1269	1.1550	1.1702	1.1117
Singapore	Dollar	SGD	1.5591	1.5926	1.6024	1.5588
South Africa	Rand	ZAR	16.4594	15.6186	14.8054	15.0490
Czech Republic	Koruna	CZK	25.7240	25.6470	25.5350	26.3260
Hungary	Forint	HUF	320.9800	318.8900	310.3300	309.1900
USA	Dollar	USD	1.1450	1.1810	1.1993	1.1297

3. Summary of significant accounting policies

3.1. Goodwill

Goodwill is not amortised but is tested annually for impairment. An impairment test is also carried out during the financial year if events or circumstances (triggering events) occur giving rise to indications of possible impairment. Goodwill is reported on the basis of its purchase cost at the date of acquisition and measured in subsequent periods at its purchase cost less all accumulated impairment losses. For the purposes of impairment testing, goodwill acquired in the context of a business combination is allocated to the cash-generating unit or group of cash-generating units which are expected to benefit from the synergies of the combination. A cash-generating unit is the smallest identifiable group of assets capable of generating cash inflows that are largely independent of the cash inflows from other assets or other groups of assets. If the recoverable amount of a cash-generating unit is less than the carrying amount of the unit, the impairment loss is allocated firstly to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets pro rata on the basis of the carrying amount of each asset within the unit. The recoverable amount is the higher of the fair value of the unit less costs to sell and its value in use. As a matter of principle, the ATON Group utilises the value in use of the relevant cash-generating units to determine the recoverable amount. This is based on the current business plan prepared by management, which generally covers a period of three years. Reasonable assumptions are made with respect to the future development of the business for the subsequent years. The cash flows are determined on the basis of the expected growth rates in the relevant sectors and markets. The cash flows after the end of the detailed planning period are estimated using individual growth rates derived from information relating to the particular market of no more than 1.0 % p.a. Individual discount rates for the particular cash-generating units between 6.0 % and 9.7 % (previous year: 5.7 % and 10.0 %) are used for the purpose of determining the value in use. A goodwill impairment loss recognised in one period may not be reversed in future periods. In the event of the sale of a subsidiary, the associated amount of goodwill is included in the calculation of the gain or loss on disposal. The treatment of goodwill arising on the acquisition of an associate is described under "Associates".

3.2. Other intangible assets

Purchased intangible assets are measured at cost and amortised on a straight-line basis over their economic useful lives. Other intangible assets mainly comprise software, together with patents, licences and similar rights. The expected useful life for concessions, patents and similar rights is generally defined between two and fifteen years and for software between one and eight years.

Research costs are expensed in the period in which they are incurred.

The development costs of a project are only capitalised as an intangible asset if the company can demonstrate both the technical feasibility of completing the intangible asset so that it will be available for internal use or sale and also the intention to complete the intangible asset and to use or sell it. It must also demonstrate how the asset will generate future economic benefits, the availability of resources for the purpose of completing the asset and the ability to reliably measure the expenditure attributable to the intangible asset during its development.

The cost of an internally generated intangible asset is the total of the directly attributable direct costs and overheads incurred from the date when the intangible asset first meets the recognition criteria described above. Financing costs are not capitalised except in the case of qualifying assets. Internally generated intangible assets are amortised on a straight-line basis over their economic useful lives of three years. Amortisation in the case of internally generated intangible assets begins when the asset is available for use, i.e. when it is in the condition necessary for it to be capable of operating in the manner intended by management.

In cases where it is not possible to recognise an internally generated intangible asset, the costs of development are expensed in the period in which they are incurred.

Intangible assets acquired in a business combination are recorded separately from goodwill if the fair value of the asset can be reliably measured. The costs of such an intangible asset correspond to its fair value at the date of acquisition. Amortisation is calculated using the straight-line method based on the estimated useful life.

Intangible assets with indefinite useful lives are not amortised but are tested annually for possible impairment. If events or changes in circumstances occur giving indications of possible impairment, impairment testing must be carried out more frequently. Further details of the procedure for annual impairment tests are provided under note **3.4. Impairment of property, plant and equipment and other intangible assets**.

3.3. Property, plant and equipment

Items of property, plant and equipment used in the business for longer than one year are recognised at the cost of acquisition or production less straight-line depreciation and accumulated impairment losses. The cost of production comprises all directly attributable costs and appropriate portions of production-related overheads. Investment grants are generally deducted from the cost of the asset. If the production or acquisition of items of property, plant and equipment is spread over a longer period, borrowing costs incurred up to the date of completion are capitalised as a component of cost in conformity with the provisions of IAS 23. If the costs of particular components are significant in relation to the total cost of the item of property, plant and equipment, then those components are capitalised and depreciated separately. The cost of replacing a part of the item of property, plant and equipment is included in the carrying amount of that item at the date when it is incurred, provided that the criteria for recognition are satisfied. The cost of carrying out a major inspection is also recognised in the carrying amount of property, plant and equipment as a replacement, provided that the recognition criteria are met. All other servicing and maintenance costs are recorded immediately in the income statement. Subsequent costs of acquisition or production are only recognised as part of the cost of the asset if it is probable that it will bring future economic benefit to the Group and if the cost of the asset can be reliably determined.

The useful lives of the principal categories of assets of the Group are determined using comparative tables customary in the industry and on the basis of its own past experience, which can be classified as follows:

Property, plant and equipment	Useful life in years
Buildings	2 to 60
Technical equipment and machinery (excluding mining and construction machinery)	2 to 25
Other machinery and equipment	2 to 8
Operating and office equipment	1 to 25

3.4. Impairment of property, plant and equipment and other intangible assets

At each reporting date or the occurrence of respective events, the Group assesses whether there are indications that items of property, plant and equipment and intangible assets might be impaired. If such indications are identified, the recoverable amount of the asset is estimated in order to determine the extent of an impairment loss. The recoverable amount is calculated as the higher of the fair value less costs to sell ("net realisable value") and the present value of the expected net cash inflows from the continuing use of the asset ("value in use"). Where a forecast of the expected cash inflows for an individual asset is not possible, the cash inflows are estimated for the next larger group of assets, which generates cash inflows that are largely independent of those from other assets, (cash-generating unit) to which the asset belongs to.

For the purpose of estimating value in use, the estimated future cash flows are discounted to their present value using a pre-tax rate of interest. If the estimated recoverable amount of an asset (or of a cash-generating unit) falls below its carrying amount, the carrying amount of the asset (or of the cash-generating unit) is reduced to the recoverable amount. First, any goodwill allocated to the cash-generating unit is impaired and any remaining impairment loss is then allocated to the other assets of the unit on the basis of the carrying amount of each asset in the unit.

The impairment loss is recognised immediately with effect on income statement. If the impairment loss is subsequently reversed, the carrying amount of the asset (or of the cash-generating unit) is increased to the updated estimate of the recoverable amount. The carrying amount resulting from this increase must not exceed the carrying amount that would have been determined for the asset (or the cash-generating unit) if an impairment loss had not been recognised in previous periods. The reversal of an impairment loss is recorded immediately in the income statement. Impairment losses recognised in respect of goodwill may not be reversed.

Internally generated intangible assets that have not yet been completed are tested for impairment at least once a year.

3.5. Cash and cash equivalents

Cash reported in the consolidated statement of financial position comprises cheques, cash-in-hand and balances with banks with an original maturity of up to three months. Cash equivalents reported in the balance sheet consist of short-term, highly liquid financial assets that can be converted into specified amounts of cash at any time and are exposed only to insignificant risks of fluctuations in value. Cash and cash equivalents are measured at amortised cost. Cash and cash equivalents in the consolidated statement of cash flows are defined in accordance with the above definition.

3.6. Investment properties

This item refers to property held for the purpose of generating rental income and/or increase in value (including property being constructed or developed and intended for such purposes). Investment properties are initially recognised at cost, including transaction costs. In subsequent periods, investment properties are recorded at amortised cost net of accumulated straight-line depreciation and impairment losses. The useful life is between 50 and 60 years. Unchanged to prior year as of 31 December 2018 no investment properties exist.

3.7. Leases

The Group as lessee

Leases are classified as finance leases if substantially all of the risks and rewards associated with the ownership of the asset are transferred to the lessee under the lease agreement. All other leases are classified as operating leases. The rules described in this section also apply to sale and leaseback transactions.

Assets held under the terms of a finance lease are initially recognised as assets of the Group at their fair value at the start of the lease or, if lower, the present value of the minimum lease payments. The corresponding liability to the lessor is reported in the balance sheet as an obligation from finance leases. The lease payments are divided into interest expense and repayment of the lease commitment in such a way that the interest on the remaining liability remains constant. The interest expense is recorded directly in the income statement. Contingent rents are recognised as an expense in the period in which they arise.

Rental payments under operating leases are expensed on a straight-line basis over the term of the lease, unless another systematic basis is more representative of the time pattern of the lessee’s benefit. Contingent rents under the terms of an operating lease are recorded as an expense in the income statement in the period in which they arise.

In cases where incentives to enter into an operating lease have been received, those incentives are recorded as a liability. The cumulative benefit of incentives is recognised on a straight-line basis as a reduction of the rental payments, unless another systematic basis is more representative of the time pattern of the benefit from the leased asset.

The Group as lessor

Leases under which substantially all the risks and rewards of ownership are retained by the Group are classified as operating leases. The leased assets continue to be capitalised by the ATON Group as fixed assets. Initial direct costs incurred in negotiating and concluding a lease agreement are added to the carrying amount of the leased asset and expensed over the term of the lease agreement in a manner corresponding to the recognition of the rental income. Contingent rents are recorded in the period in which they are generated.

3.8. Reparable aircraft spare parts

For the purpose of measuring reparable aircraft spare parts, the spare parts are allocated to the individual aircraft models and depreciated over the remaining useful life of the respective aircraft model, taking into account estimated residual values. Residual values and useful lives are reviewed at each reporting date. Changes in the residual values and their effects on annual depreciation charges are reflected prospectively in accordance with IAS 8, “Accounting Policies, Changes in Accounting Estimates and Errors” in the period of the change and the subsequent periods.

3.9. Inventories

Inventories are valued at the lower of acquisition or production cost and their net realisable value on the reporting date. The net realisable value is the estimated selling price in the ordinary course of business less direct selling costs and directly attributable production costs still to be incurred. If the net realisable value is lower than the carrying amount, an impairment loss is recognised.

The cost of raw materials, consumables and supplies is mainly determined at average purchase prices, which are calculated on the basis of a moving average.

In addition to direct material costs, direct labour costs and special direct costs, the production costs of unfinished and finished goods include all directly attributable production-related overheads. General administrative costs and financing costs are not capitalised, except in the case of a qualifying asset. The production costs are determined on the basis of normal production capacity.

The purchasing cost of merchandise also includes incidental costs of purchase.

3.10. Non-current assets held for sale and disposal groups

Non-current assets or disposal groups are classified as held for sale if the associated carrying amount is mainly intended to be realised by means of a sale and not from continuing use. This condition is considered to have been satisfied only if the sale is highly probable and the asset (or the disposal group) is available for immediate sale in its current condition. Management must be committed to a plan for the sale of the asset (or the disposal group) and must have initiated an active programme to locate a buyer and to implement the plan. In addition, the asset (or the disposal group) must be actively marketed at a price that is reasonable in relation to its current fair value. There must be an expectation that this will result in the recognition of a completed sale transaction within one year of such classification. Depreciation is suspended in such cases. Non-current assets (and disposal groups) classified as held for sale are measured at the lower of their original carrying amount and their fair value less costs to sell.

3.11. Financial assets

The accounting policies included in this chapter relate to the accounting and valuation of financial assets under IAS 39, with the exception of disclosures about the fair value. For material accounting and valuation methods under IFRS 9, please refer to section **2.2 Application of new, amended or revised standards**.

Financial assets are divided into the following categories: financial assets at fair value through profit or loss, held-to-maturity financial investments, loans and receivables, and available-for-sale financial assets. Management determines the classification of the financial assets at initial recognition.

Financial assets are initially measured at fair value. In the case of financial investments other than those classified as at fair value through profit or loss, transaction costs directly attributable to the purchase of the asset are also included in the carrying amount.

All purchases and sales of financial assets customary in the market are recorded in the financial statements at the trade date, i.e. the date on which the Group has entered into the obligation to buy or sell the asset.

Financial assets at fair value through profit or loss (FAHfT)

The category of financial assets at fair value through profit or loss comprises financial assets held for trading purposes and those designated as at fair value through profit or loss on initial recognition. Financial assets are classified as held for trading if they are acquired for the purposes of sale in the near future. Derivatives for which hedge accounting is not applied are also classified as held for trading. Financial assets are measured at fair value in subsequent periods. Gains or losses from financial assets held for trading and changes in the fair value of financial investments designated into this category are recorded in profit or loss.

Held-to-maturity investments (HtM)

Non-derivative financial assets with fixed or determinable payments and fixed maturity dates are classified as held-to-maturity investments if the Group has the intention and ability to hold them to maturity. After initial recognition, held-to-maturity investments are measured at amortised cost using the effective interest method. Gains and losses are recorded in the income statement for the period when the investments are derecognised or impaired, and also in relation to the amortisation process.

Loans and receivables (LaR)

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted on an active market. After initial recognition, loans and receivables are measured at amortised cost using the effective interest method less any impairment losses. Gains and losses are recorded in the income statement for the period when the loans and receivables are derecognised or impaired, and also in relation to the amortisation process.

Interest expenses arising from the sale of receivables are included in the financial result. Management fees are reported in other operating expenses.

Cash and cash equivalents, including cash accounts and short-term deposits with banks, have a remaining maturity of up to three months on initial recognition and are measured at amortised cost.

Available-for-sale financial assets (AfS)

Available-for-sale financial assets are non-derivative financial assets that are designated as available for sale or have not been classified into one of the three previously mentioned categories. After initial recognition, available-for-sale financial assets are measured at fair value. Unrealised gains or losses are recorded directly in equity. If a financial asset in this category is derecognised or impaired, the accumulated gain or loss previously recorded directly in equity is recognised in the income statement.

Fair value

The fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal or most advantageous market at the measurement date under current market conditions. It is regardless whether that price is directly observable or estimated using another valuation technique. Those valuation techniques include using recent arm’s length market transactions between knowledgeable, willing parties, reference to the current fair value of another financial instrument that is substantially the same, discounted cash flow analysis and the use of other valuation models incorporating current market parameters.

Fair value hierarchy

The measurement and presentation of the fair values of financial instruments is based on a fair value hierarchy that categorises the valuation techniques and input factors used to measure fair value into three levels.

Level 1: Quoted prices (adopted without changes) on active markets for identical assets and liabilities.

Level 2: Input data for the asset or liability observable either directly or indirectly which do not represent quoted prices according to level 1. The fair values of level 2 financial instruments are determined on the basis of the conditions prevailing at the end of the reporting period, such as exchange rates or interest rates, and using recognised valuation models.

Level 3: Input data for the asset or liability not based on observable market data (unobservable input data).

Amortised cost

Held-to-maturity investments as well as loans and receivables are measured at amortised cost. Amortised cost is determined using the effective interest method less any valuation allowances and taking into account discounts and premiums on acquisition, and includes transaction costs and fees that form an integral part of the effective interest rate.

Impairment of financial assets

At each reporting date, the Group tests whether there are objective indications that a financial asset or a group of financial assets may be impaired. A financial asset or a group of financial assets is impaired only if there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset, and if that loss event (or events) has an impact on the estimated future cash flows of the financial asset or group of financial assets that can be reliably estimated.

A potential impairment loss is assumed to exist in respect of assets measured at amortised cost (LaR and HtM) in the case of certain events such as failure to make payments over a particular period, the initiation of enforcement measures, impending insolvency or over indebtedness, an application for or initiation of bankruptcy proceedings or the failure of a restructuring programme.

If an impairment of assets measured at amortised cost has occurred, the amount of the impairment loss is calculated as the difference between the carrying amount of the asset and the present value of the expected future cash flows (with the exception of expected future loan defaults that have not yet occurred), discounted at the original effective interest rate of the financial asset, i.e. the effective interest rate determined on initial recognition. For trade and other receivables the carrying amount of the asset is reduced using a valuation allowance account and for other assets the carrying amount is directly reduced. The impairment loss is recorded in the income statement. Valuation allowances are created in the form of individual valuation allowances. The receivables are derecognised if they are classified as uncollectible, i.e. a cash inflow is no longer expected to occur.

If the amount of the impairment loss decreases in the subsequent reporting periods and if this decrease can be objectively attributed to an event that occurred after the impairment loss was recorded, the impairment loss previously recognised is reversed. However, the revised carrying amount of the asset may not exceed its amortised cost at the date of the reversal. The reversal is recorded in profit or loss.

If the value of an available-for-sale financial asset is impaired, an amount equal to the difference between the acquisition cost of the asset measured at amortised cost (less any principal repayments and amortisation) and its current fair value (less any impairment losses previously recognised in the income statement) is reclassified into profit or loss from the amount previously recorded in equity. Reductions in impairment losses of equity instruments classified as available for sale may not be recognised in profit or loss. Reductions in impairment losses of debt instruments classified as available for sale are recognised in profit or loss if the increase in the fair value of the instrument can objectively be related to an event occurring after the impairment loss was recognised in the income statement.

In contrast, available-for-sale equity investments for which there is no quoted value on an active market and the fair value cannot be determined otherwise are measured at cost in subsequent periods. If the recoverable amount is lower than the carrying amount at the reporting date, an impairment loss is recognised in the income statement. Impairment losses recognised in profit and loss for an investment in an equity instrument classified as available for sales are not reversed through profit and loss.

3.12. Financial liabilities

The accounting policies included in this chapter relate to the accounting and valuation of financial liabilities under IAS 39, with the exception of disclosures about the fair value. For material accounting and valuation methods under IFRS 9, please refer to section **2.2 Application of new, amended or revised standards**.

Financial liabilities are classified either as financial liabilities at fair value through profit or loss or other financial liabilities measured at amortised cost.

Financial liabilities are measured at their fair value on initial recognition. Directly attributable transaction costs are also recognised in the case of all financial liabilities not subsequently measured at fair value through profit or loss.

Financial liabilities at fair value through profit or loss (FLHfT)

The category of financial liabilities at fair value through profit or loss comprises financial liabilities held for trading purposes and those designated as at fair value through profit or loss on initial recognition. Financial liabilities are classified as held for trading if they are entered into with a view to their purchase in the near future. Derivatives for which hedge accounting is not applied are also classified as held for trading. Financial liabilities are measured at fair value in subsequent periods and gains or losses are recorded in the income statement.

Amortised cost

Trade payables and other non-derivative financial liabilities are generally measured at amortised cost using the effective interest method.

3.13. Derecognition of financial assets and financial liabilities

Financial assets

A financial asset (or a portion of a financial asset or a portion of a group of similar financial assets) is derecognised if one of the three following preconditions is met:

- The contractual rights to receive the cash flows from a financial asset have expired.
- While the Group retains the rights to receive the cash flows from a financial asset, it assumes a contractual obligation to pay the cash flows immediately to a third party under an arrangement that satisfies the conditions of IFRS 9.3.2.6 (pass-through arrangement).
- The Group has transferred its contractual rights to receive the cash flows from a financial asset and in doing so has transferred substantially all the risks and rewards associated with ownership of the financial asset or, while it has neither transferred nor retained substantially all the risks and rewards associated with ownership of the financial asset, has nevertheless transferred control over the asset.

If the Group transfers its contractual rights to the cash flows from an asset, and neither transfers nor retains substantially all the risks and rewards of ownership of the transferred asset and retains control of the transferred asset, the Group continues to recognise the transferred asset to the extent of its continuing involvement. When the continuing involvement takes the form of guaranteeing the transferred asset, the extent of the continuing involvement is the lower of the original carrying amount of the asset and the maximum amount of the consideration received that the Group could be required to repay. When the continuing involvement takes the form of a written and/or a purchased option on the transferred asset (including an option settled in cash or by a similar method), the extent of the Group's continuing involvement is the amount of the transferred asset that it may repurchase. However, in the case of a written put option (including an option settled in cash or by a similar method) on an asset that is measured at fair value, the extent of the Group's continuing involvement is limited to the lower of the fair value of the transferred asset and the exercise price of the option.

Financial liabilities

A financial liability is derecognised when the underlying obligation is discharged, cancelled or has expired. If an existing financial liability is exchanged for another financial liability of the same lender with substantially different terms or if the terms of an existing liability are substantially modified, such exchange or modification is accounted for as a derecognition of the original liability and the recognition of a new liability. It does not matter if this is due to financial difficulties of the debtor or not. The difference between the respective carrying amounts is recognised in profit or loss.

3.14. Derivative financial instruments

The Group uses derivative financial instruments such as forward exchange contracts and options in order to hedge against currency risks. These derivative financial instruments are recorded at their fair value at the date of inception of the contract and measured at their fair value in subsequent periods. Derivative financial instruments are recognised as assets if they have a positive fair value and as liabilities if their fair value is negative. Gains and losses from changes in the fair value of derivative financial instruments that do not meet the criteria for hedge accounting are recognised immediately in the income statement. The fair value of forward exchange contracts and options is calculated using recognised valuation models with reference to current market parameters.

Cash flow hedges are used to hedge the risk of fluctuations in the future cash flows associated with a recognised asset, a recognised liability or a highly probable forecast transaction. In the case of a cash flow hedge, unrealised gains and losses on the hedging instrument are initially recorded in other comprehensive income after reflecting deferred taxes, if the hedging relationships are deemed effective. They are reclassified into the income statement only when the hedged item affects profit or loss. If forecast transactions are hedged and those transactions result in the recognition of a financial asset or a financial liability in subsequent periods, the amounts recorded in equity up to that date are reclassified into profit or loss in the same period in which the asset or the liability affects profit or loss. If the transactions result in the recognition of non-financial assets or liabilities, such as the purchase of property, plant and equipment, the amounts recorded directly in equity are included in the initial carrying amount of the asset or the liability.

At the inception of a hedge, comprehensive documentation of the hedge accounting is required in accordance with the requirements of IFRS 9, which among other things describes the risk management strategy and objectives associated with the hedge. The effectiveness of the hedging relationship is measured at regular intervals and the hedging relationship adjusted if necessary.

The transition of the accounting logic regarding the hedge accounting to the requirements of IFRS 9 in the financial year resulted in no revaluation effects since there was no hedge accounting as of 31 December 2018.

3.15. Provisions

A provision is recognised if the Group has a present obligation (legal or constructive) as a result of a past event, an outflow of resources embodying economic benefits to settle the obligation is probable (more likely than not) and the amount of the obligation can be estimated reliably. If the Group expects reimbursement in respect of at least a portion of a provision recognised (such as in the case of an insurance policy), the reimbursement is recognised as a separate asset to the extent to which it is virtually certain that the reimbursement will be received. The expense from the recognition of the provision is reported in the income statement net of the reimbursement. If the interest effect from discounting is material, provisions are discounted at a pre-tax interest rate which reflects the specific risks for the liability. In the event of discounting, the increase in the provision over time is recorded as a financial expense.

3.16. Employee benefits

Pension obligations

The Group has both defined benefit and defined contribution pension plans. A defined contribution plan is a pension plan under which the Group pays fixed contributions to a company (fund) which is not a part of the Group. The Group has no legal or constructive obligation to make further payments if the fund does not have sufficient assets to pay all of the employees' pension entitlements from the current and previous financial years. In contrast, defined benefit plans typically specify an amount of pension benefits that an employee will receive on retirement and which is generally dependent on one or more factors such as age, years of service and salary.

The provision recognised in the statement of financial position in respect of defined benefit pension plans is the present value of the defined benefit obligation (DBO) at the end of the reporting period less the fair value of the plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The measurement of the obligation in the statement of financial position is based on a number of actuarial assumptions. Assumptions are required to be made, in particular, about the long-term salary and pension trends as well as the average life expectancy. The assumptions about salary and pension trends are based on developments observed in the past, and take into account the level of interest rates and inflation in the particular country and the respective developments in the labour market. Recognised biometric bases for actuarial calculations are used to estimate the average life expectancy. The interest rate used for discounting the future payment obligations is derived from currency and term congruent high-quality corporate bonds.

Remeasurements arising from experience adjustments and changes in actuarial assumptions are recognised in other comprehensive income in equity in the period in which they arise. Past-service cost is recognised immediately in profit or loss.

Pension expenses are included in the personnel expenses with the exception of interest components which are included in the financial result.

In the case of defined contribution plans, the Group pays contributions to state or private pension insurance plans either on the basis of statutory or contractual obligations, or voluntarily. The Group has no further payment obligations once the contributions have been paid. The amounts are recorded in personnel expenses when they become due. Prepayments of contributions are recognised as assets to the extent that a right exists to a refund or a reduction in future payments.

Termination benefits

Termination benefits are paid if employment is terminated by a Group company before the employee reaches the regular retirement age or if an employee leaves the company voluntarily against a compensation payment. The Group recognises severance payments when it is demonstrably committed to terminate the employment of current employees in accordance with a detailed formal plan which cannot be withdrawn, or when it is demonstrably required to make severance payments as a result of voluntary termination of employment by employees. Payments that are due more than twelve months after the reporting date are discounted to their present value.

3.17. Revenue recognition

The accounting policies included in this chapter relate to accounting and measurement principles in accordance with IAS 18. For the significant accounting and measurement principles in accordance with IFRS 15, please refer to section **2.2 Application of new, amended or revised standards**.

Revenue is measured at the fair value of the consideration received or to be received, less any expected customer returns, discounts and other similar deductions. The Group recognises revenue when the amount of the revenue can be reliably determined, when it is probable that future economic benefits will flow to the entity as a result and when the specific criteria for each type of activity set out below have been satisfied.

Sale of goods

Revenue from the sale of goods is recognised when the following conditions have been met:

- the Group has transferred the significant risks and rewards of ownership of the goods to the buyer,
- the Group retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods and products sold,
- the amount of the revenue can be measured reliably,
- it is probable that the economic benefits associated with the transaction will flow to the entity, and the costs incurred or yet to be incurred in connection with the sale can be measured reliably.

Rendering of services

Revenue from service agreements is recognised as income by reference to the stage of completion of the transaction. The result of this is that contract income is recorded in the reporting period in which the service was rendered. For information on the determination of the stage of completion, please refer to the details provided under Note **3.18 Construction contracts**.

Royalties

Income from royalties is recorded on an annual basis in accordance with the economic substance of the relevant agreement. Time-based royalties are recognised over the period of the agreement on a straight-line basis. Income from royalty agreements based on production, sales or other measures is recognised in accordance with the underlying agreement.

Dividends and interest

Dividend income from shares is recognised when the shareholder's legal right to receive payment is established. Interest income is recognised on an accrual basis according to the amount of the principal outstanding using the applicable effective interest rate. The effective interest rate is the interest rate that exactly discounts the expected future cash inflows over the life of the financial asset to the net carrying amount of that asset.

Rental income

Income from leasing and rental income from operating leases are recorded on a straight-line basis over the rental period, provided that the Group is the economic owner.

3.18. Construction contracts

The accounting policies included in this section relate to the accounting and measurement principles of construction contracts in accordance with IAS 11. For the significant accounting and measurement principles in accordance with IFRS 15, please refer to section **2.2 Application of new, amended or revised standards**.

The Group mainly develops engineering services projects, machinery manufacturing projects and tunnel construction projects as long-term construction contracts, which are measured in accordance with the percentage of completion (PoC) method if the contract revenues and expenses can be reliably determined. A distinction is made between fixed price contracts and cost plus contracts. If the criteria for applying the percentage of completion method in accordance with IAS 11 for a fixed price contract or a cost plus contract, respectively, are satisfied, then the contract income and contract costs associated with this construction contract are allocated to the financial years in accordance with the stage of completion.

The percentage of completion is determined by the ratio of the contract costs incurred by the reporting date to the total contract costs estimated at the reporting date (cost-to-cost method). Contract costs include costs directly attributable to the contract, all indirect costs of general contracting activity that can be attributed to the contract and other costs specifically charged to the customer. If the projects are developed over a longer period of time, borrowing costs incurred before completion may be included in the contract costs in accordance with the conditions of IAS 23. Changes to contractual work, claims and incentive payments are included to the extent that they have been agreed with the customer. Individual construction contracts are subdivided or combined if specific criteria are satisfied.

If the outcome of the construction contract cannot be reliably estimated and the percentage of completion method may therefore not be applied, contract revenue is recognised only to the extent of the contract costs incurred that are expected to be recoverable. Contract costs are recognised as an expense in the period in which they arise. If it is probable that the total contract costs will exceed total contract revenue, the total expected loss must immediately be recorded as an expense and a provision for a loss-making contract is recognised. The gross amount due from customers for contract work comprises the net amount of the costs incurred plus profits recognised, less the total losses recognised and the partial billings for all contracts in progress, for which the costs incurred plus profits recognised exceed the partial billings. If the partial billings are higher, the contract represents an amount due to the customer. The gross amount due from customers for contract work is reported in the statement of financial position within the item "Trade and other receivables". The gross amount due to customers from contract work is included in "Trade and other payables".

3.19. Borrowing costs

Borrowing costs that can be directly allocated to the acquisition, construction or production of a qualifying asset are capitalised as a component of the acquisition or production cost of that asset. Other borrowing costs are recognised as an expense in the period in which they are incurred, if they are not also required to be capitalised under IAS 23.

3.20. Government grants

Government grants are recognised only when there is reasonable assurance that the Group will comply with the conditions attached to the grants and that the grants will also be received.

Government grants whose most important condition is the purchase, construction or other acquisition of non-current assets are recorded as a deduction from the acquisition or production cost of the asset. Other government grants are recognised as income over the period necessary to match them with the related costs which they are intended to compensate, on a systematic basis. Government grants received as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Group with no future related costs are offset against the expenses incurred in the period in which the entitlement is established.

3.21. Income taxes

The income tax expense for the period comprises current and deferred taxes.

Current taxes

The current tax expense for each entity liable to tax is derived from its taxable income. The Group’s current tax liability is calculated on the basis of the applicable tax rates.

Deferred taxes

Deferred taxes are recognised for all temporary differences between the tax base of the assets and liabilities and their carrying amounts in the consolidated financial statements (balance sheet-oriented liability method). Deferred taxes are not recognised if the temporary differences arise from the initial recognition of goodwill or (except in the case of business combinations) of other assets and liabilities resulting from transactions that do not affect either taxable income or the net profit for the year.

Deferred tax assets and liabilities are generally recognised for all taxable temporary differences. When deferred tax assets exceed deferred tax liabilities, they are only recognised to the extent to which taxable income will probably be available against which the deductible temporary differences can be utilised, and where the assumption can be made that they will reverse in the foreseeable future.

Deferred tax liabilities are recognised for taxable temporary differences arising from investments in subsidiaries or associates as well as investments in joint ventures, unless the Group can control the timing of the reversal of the temporary differences and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax assets and liabilities are calculated on the basis of the tax rates (and the tax laws) expected to be applicable at the date when the liability is settled or the asset is realised. The measurement of deferred tax assets and liabilities reflects the tax consequences that would arise from the manner in which the Group expects at the reporting date to settle the liability or to realise the asset. Deferred tax assets and liabilities are offset if there is a legally enforceable right to set off current tax assets against current tax liabilities, and if they relate to income taxes levied by the same tax authority and the Group intends to settle its current tax assets and liabilities on a net basis. Additionally, deferred tax assets for tax losses carried forward are recognised, if their use in following periods is expected to reduce tax payments.

Current and deferred taxes for the period

Current and deferred taxes are recorded as income or expenses unless they relate to items recognised directly in equity. In this event, the tax is also recorded directly in equity. In addition, tax effects are not recognised in the income statement if they result from the initial recognition of a business combination. In the case of a business combination, the tax effect is reflected in the calculation of the goodwill or in the determination of the excess of the acquirer's share of the fair value of the identifiable assets, liabilities and contingent liabilities of the business acquired over the cost of the business combination.

4. Estimates and assumptions

In preparing the consolidated financial statements, estimates and assumptions are made to a certain extent that affect the amount and presentation of the assets and liabilities recognised, the income and expenses and the contingent liabilities for the reporting period. The premises underlying the estimates and assumptions are based on the state of knowledge available at the time in the particular case. Due to the uncertainty associated with these estimates and assumptions, however, outcomes may occur, which result in future adjustments to the carrying amounts of the assets and liabilities affected.

The material estimates listed below and the associated assumptions together with the uncertainties attaching to the accounting policies adopted are central to an understanding of the risks underlying the financial reporting and the effects that those estimates, assumptions and uncertainties may have on the financial statements.

Estimates are especially necessary in the case of the assets and liabilities referred to below and the associated income and expenses.

Business combinations

The measurement of items of property, plant and equipment and intangible assets acquired as part of a business combination requires estimates to be made for determining their fair value at the date of acquisition. The expected useful lives of the assets must also be estimated. The determination of the fair value of assets and liabilities and of the useful lives of the assets is based on the management's assessments.

Impairment of goodwill

The Group tests goodwill for possible impairment at least once a year. The calculation of the recoverable amount of a cash generating unit to which goodwill has been allocated requires estimates to be made by management. The Group generally determines these amounts using valuation techniques based on discounted cash flows. These cash flows are based on three-year forecasts derived from financial projections approved by management. The forecasts take into account past experience and are based on management's best estimate of future developments. The most important assumptions underlying the determination of the discounted cash flows comprise estimated growth rates, weighted interest rates and tax rates. These premises can have a significant effect on the relevant amounts and therefore on the extent to which goodwill is impaired.

Impairment of property, plant and equipment and intangible assets

The identification of indications that an asset may be impaired, the estimation of future cash flows and the determination of the fair values of assets or groups of assets require significant assessments by management regarding the identification and review of signs of impairment, the expected cash flows, the appropriate discount rates, the respective useful lives and any residual values.

Revenue recognition based on the performance obligation satisfied over time in accordance with IFRS 15 (or revenue recognition for construction contracts in accordance with IAS 11 until 31 December 2017)

For some companies, in particular within the FFT Group, the EDAG Group and the Redpath Group, revenue is recognised for huge portion of the business on a time-related basis. In the plant construction project business, revenue is often recognised over a the period of time that the performance obligation is satisfied. In order to determine the progress towards complete satisfaction of the performance obligation, the total project costs and revenues, as well as project risks, are among the most important estimates. The companies continuously review and, if necessary, adjust all estimates related to such construction contracts.

Determination of expected credit losses according to IFRS 9

The calculation of expected credit losses for loans, trade receivables, contract assets under IFRS 15 and other receivables is subject to significant estimates and assumptions, which are explained below.

The measurement of expected credit losses on loans and other receivables is essentially based on the classification of the respective debtors in ATON-specific risk scales and the default probabilities recorded there. In a changing market and competitive environment, the estimate of the creditworthiness of a debtor made at the reporting date may differ during the course of the year. The recognized risk allowance can thus be recorded too low / high. Furthermore, the probability of default represents a statistical measure, which may also require adjustments to allowances.

The determination of the expected credit losses for trade receivables and contract assets in accordance with IFRS 15 is based on historical values, which are adjusted by the use of future-looking information. The forward-looking information has proved to be a suitable indicator of the level of impairment using statistical methods. However, due to strong economic upswings and downturns, the forward-looking information may lose its explanatory power and thus induce volatility in the recording of risk allowances. In addition, material effects from the past can distort the risk allowance, which may also necessitate a subsequent correction (please refer also to **note 2.2. Application of new, amended and revised standards**).

Valuation allowances for trade and other receivables in accordance with IAS 39 (valid until 31 December 2017)

The Group recognises valuation allowances for doubtful receivables in order to reflect imminent losses resulting from customers' inability to pay. Management assesses the appropriateness of valuation allowances based on the maturity structure of the outstanding balances, the analysis of historical bad debts, the customer's creditworthiness, current economic developments and changes in the payment terms and conditions. In the event that the customer's liquidity position deteriorates, the extent of actual losses on receivables may exceed the imminent losses.

Pensions and other post-employment benefits

The obligation from defined benefit plans and other post-employment benefits is determined on the basis of actuarial calculations. The actuarial measurement is based on assumptions with respect to discount rates, future wage and salary increases, biometric bases and future increases in pensions.

The discount factors applied reflect the interest rates achievable at the reporting date for currency and term congruent high-quality corporate bonds. As a result of the changing situation in the market and the economy and the long-term orientation of these pension plans, the underlying premises may differ from the actual development, which may significantly affect the obligations for pensions and other post-employment benefits.

For a sensitivity analysis showing how the defined benefit obligation would have been affected by changes in the significant actuarial assumptions, reference is made to note **28. Provisions for pensions**.

Provisions

The determination of provisions for imminent losses from onerous contracts, provisions for warranties and provisions for litigation is dependent to a considerable extent on estimates of the likelihood of a future outflow of resources, as well as on past experience and the circumstances known at the reporting date. Because of the uncertainties associated with this assessment, actual losses may differ from the original estimates and therefore from the amount of the provision.

A huge portion of the business of FFT, EDAG, Redpath and their subsidiaries is conducted in the form of long-term contracts. The Group recognises a provision for imminent losses from onerous contracts if the current estimate of the total contract costs exceeds the expected revenue from the relevant contract. These estimates are subject to revision in the light of new information as the project progresses. The companies identify onerous contracts by constantly monitoring the progress of the project and updating the calculation of total contract costs.

Leases

Assets and liabilities from finance leases are initially recognised at the lower of their fair value and the present value of the minimum lease payments. The determination of the fair value generally requires estimates to be made with respect to the cash flows from the use of the leased asset and with respect to the discount rate applied. The present value of the minimum lease payments is calculated using the lessor's internal rate of return. If the lessor's internal rate of return is not available, it is derived from the interest rate at which the total lease payments including any unguaranteed residual value must be discounted in order for the resulting present value to be equal to the fair value of the leased asset at the inception of the lease. The estimate of the unguaranteed residual value requires assumptions to be made which may differ from the actual residual value on expiry of the lease.

Fair value of derivative financial instruments

The fair value of financial instruments not traded on an active market is determined by applying appropriate valuation techniques, which are selected from a variety of methods. The underlying assumptions are based, to the greatest possible extent, on market conditions existing on the balance sheet date.

Deferred tax assets

Deferred tax assets are recognised to the extent that it is probable that they will be able to be utilised. The tax benefit from the utilisation of deferred tax assets depends on the ability to generate sufficient future taxable income relating to the particular type of taxation and tax jurisdiction, taking into account any statutory restrictions relating to minimum taxation or a maximum period for which tax losses may be carried forward. The assessment of the probability that deferred tax assets will be utilisable in future is based on a number of factors, such as past results of operations, operating business plans, or tax planning strategies. If actual results differ from these estimates or if adjustments to the estimates are necessary in future periods, this may have a negative impact on the results of operations, net assets and financial position. If there is a change in the assessment of the recoverability of deferred tax assets, the deferred tax assets are written down through profit or loss or other comprehensive income – according to their original recognition – or, respectively, impaired deferred tax assets are recognised through profit or loss or directly in equity.

5. Changes in the scope of consolidation

The following changes in the scope of consolidation and in terms of associated companies took place in the reporting period:

Redpath Mining (Botswana) (Pty) Ltd., Gaborone, Botswana, was dissolved during the financial year.

Dayan Contract Mining LLC, Ulaanbaatar, Mongolia, was founded as a joint venture. The Group owns 49.0 % of the shares.

TRL Mining Construction LP, Regina, Canada, was formed as a joint venture. The Group owns 33.0 % of the shares.

On 26 January 2018 the joint venture Arbeitsgemeinschaft Sanierung Schacht Zielitz 1, Mülheim an der Ruhr, was founded. The Group owns 50.0 % of the shares.

Reform Grinding Technology GmbH, Fulda, was sold effective 30 January 2018 for a purchase price of EUR 326k. The resulting disposal of net assets amounts to EUR 2,402k. This included cash and cash equivalents in the amount of EUR 205k. Due to the valuation of the assets and liabilities in accordance with IFRS 5 in the consolidated financial statements as of 31 December 2017 and due to the resurgence of intercompany receivables (net EUR 2,076k), the sale had no impact on the consolidated financial statements in the reporting period.

On 11 May 2018, EDAG EE Treuhand GmbH, Gaimersheim, was founded. The EDAG Group holds 100.0 % of the company. For materiality reasons, the company is not fully consolidated.

With effect from 4 June 2018, Haema AG, Leipzig, was sold for a sales price of EUR 220,191k and therefore deconsolidated. The resulting disposal of net assets is EUR 63,698k. This included non-current assets of EUR 42,515k, current assets of EUR 24,419k (therein cash and cash equivalents of EUR 7,727k), non-current liabilities of EUR 264k and current liabilities of EUR 2,972k. Overall, this resulted in a de-consolidation gain of EUR 156,494k.

On 14 June 2018, Ziehm Imaging Austria GmbH, Tulln on the Danube, Austria, was founded. The company is fully consolidated since its foundation.

On 10 April 2018, the ATON Group made a voluntary takeover offer in cash for the listed company Murray & Roberts Holding Limited, Bedfordview, South Africa. Until the transfer of the voluntary takeover offer into a mandatory takeover offer on 5 June 2018, the interest in the target company was increased to 43.8 %. The offer now stands at ZAR 17 per share and is conditional on the necessary regulatory and antitrust approvals being granted. We are still pending receipt some approval and therefore the previous long-stop date for the takeover bid as of 31 March 2019 was extended on 25 March 2019 until 30 June 2019. We expect to acquire control and thus the initial consolidation not before second quarter of 2019. At present, no statement can be made regarding the effects of a purchase price allocation still to be carried out. With regard to the possible effects of an acquisition on the net assets, financial position and results of operations of the ATON Group, we refer to the most recently published consolidated interim financial statements of the target company as at 31 December 2018 at http://www.murrob.com/inv-interim-results.asp.

On 2 July 2018, the Group exercised the subscription rights held in Aveng Limited, Boksburg, South Africa, thereby acquiring a total of 25.4 % in the company. Since there was a capital increase at Aveng Limited, in which the Group did not participate, the share in the company diluted to 7.0 %.

Effective 6 July 2018, the Group acquired another 5.0 % share in the EDAG Group. Therefore, the total shareholding is now at 70.7 %.

On 11 July 2018, Ziehm Imaging Japan KK, Tokyo, Japan, was founded. The company is fully consolidated since its foundation.

On 12 July 2018, Arbeitsgemeinschaft Wasserhaltung Reden, Dortmund, was founded as a joint venture. The Group holds 50.0 % of the shares.

On 20 July 2018, RGP Deilmann d.o.o., Belgrade, Republic of Serbia, was founded. The company is fully consolidated since its foundation.

On 30 October 2018, Arbeitsgemeinschaft Vorbausäule Schacht Neurode, Dortmund, was founded as a joint venture. The Group holds 50.0 % of the shares.

On 31 October 2018, EDAG Productions Solutions Korea Ltd., Seoul, South Koreas, was dissolved.

With regard to the changes in the scope of consolidation in the previous financial year 2017, please refer to the previous year’s financial statements published on the ATON Website at www.aton.de.

6. Revenue

The breakdown of reported revenue in the reporting period is as follows:

	Business segments					Total
in EUR '000	**AT Engineering**	**AT Mining**	**AT Med Tech**	**AT Aviation**	**Holding/ Consolidation**	**ATON Group**
2018						
Geographical area						
Germany	799,156	15,558	46,120	48,679	- 146	909,367
North America	242,114	175,809	53,504	4,624	-	476,051
Asia	242,751	191,927	25,103	3,189	-	462,970
Europe (excluding Germany)	238,074	42,534	73,763	17,275	-	371,646
Australia	150	149,871	893	-	-	150,914
Africa	9,173	51,370	3,664	1,556	-	65,763
South America	10,737	12,406	1,748	-	-	24,891
Total revenue	**1,542,155**	**639,475**	**204,795**	**75,323**	**- 146**	**2,461,602**
Type of revenues						
Revenue from rendering of services	1,539,837	634,508	13,647	75,323	- 146	2,263,169
Revenue from sales of goods	2,318	4,967	190,336	-	-	197,621
Other operating revenue	-	-	812	-	-	812
Total revenue	**1,542,155**	**639,475**	**204,795**	**75,323**	**- 146**	**2,461,602**
Revenue recognition						
Over a period of time	1,513,911	636,697	5,605	75,323	-	2,231,536
At a point in time	28,244	2,778	199,190	-	- 146	230,066
Total revenue	**1,542,155**	**639,475**	**204,795**	**75,323**	**- 146**	**2,461,602**

The breakdown of reported revenue in the previous year's period was as follows:

	Business segments					Total
in EUR '000	**AT Engineering**	**AT Mining**	**AT Med Tech**	**AT Aviation**	**Holding/ Consolidation**	**ATON Group**
2017						
Geographical area						
Germany	533,483	18,050	69,214	44,527	- 2,198	663,076
North America	247,620	165,164	63,344	6,989	-	483,117
Asia	143,039	160,419	26,960	2,001	-	332,419
Europe (excluding Germany)	267,647	14,495	124,434	15,419	-	421,995
Australia	37	110,154	1,438	7	-	111,636
Africa	23,987	91,004	4,370	2,014	-	121,375
South America	6,208	7,729	2,831	-	-	16,768
Total revenue	**1,222,021**	**567,015**	**292,591**	**70,957**	**- 2,198**	**2,150,386**
Type of revenues						
Revenue from rendering of services	1,116,053	71	13,746	70,957	-	1,200,827
Revenue from sales of goods	22,117	10,267	277,744	-	- 2,198	307,930
Other operating revenue	-	-	1,101	-	-	1,101
Revenue from construction contracts	83,851	556,677	-	-	-	640,528
Total revenue	**1,222,021**	**567,015**	**292,591**	**70,957**	**- 2,198**	**2,150,386**
Revenue recognition						
Over a period of time	83,851	556,677	-	-	-	640,528
At a point in time	1,138,170	10,338	292,591	70,957	- 2,198	1,509,858
Total revenue	**1,222,021**	**567,015**	**292,591**	**70,957**	**- 2,198**	**2,150,386**

7. Changes in inventories and own work capitalised

Changes in inventories and own work capitalised break down as follows:

in EUR '000	2018	2017
Changes in inventories of goods and services	1,398	-6,159
Own work capitalised	3,989	4,389
Changes in inventories and own work capitalised	**5,387**	**-1,770**

Changes in inventories reflect the increase / decrease in unfinished and finished goods and services calculated on the basis of the acquisition cost method.

The increase in inventories compared to the previous year results from an increase in unfinished and thus products and services not yet invoiced, particularly within the segments AT Engineering. In contrast, there is a decline in unfinished and finished products and services in the segments AT Med Tech and AT Mining.

Own work capitalised in the reporting period mainly contains own work of the Ziehm Group amounting to EUR 3,804k (previous year: EUR 3,564k).

8. Other operating income

The other operating income comprises the following:

in EUR '000	2018	2017
Operating income		
Income from benefits from the use of a company car	6,178	3,821
Rental and lease income	4,042	2,432
Miscellaneous operating income	3,469	3,120
Government grants	3,413	2,486
Income from recycling/scrap disposal	619	615
Income from insurance compensation payments	554	677
Income from compensation and agreements for terminating contracts	401	240
Income from cost reimbursements	215	423
Income from catering/canteen	164	708
Income from external services and cost transfers third parties	132	341
Income from reversal of provisions/derecognition of liabilities	-	907
Income from the reversal of specific valuation allowances	-	394
Income from derecognised receivables	-	9
Income from compensation payments due to contract terminations	-	-
Operating income	**19,187**	**16,173**
Non-operating income		
Income from the disposal / deconsolidation of consolidated companies	156,494	73,496
Currency translation gains	21,406	12,910
Income from the reversal of provisions/derecognition of liabilities	6,888	15,614
Miscellaneous non-operating income	2,982	1,808
Income from the disposal and write-ups of intangible assets and property, plant and equipment	2,329	2,169
Income from other periods	1,423	292
Income from hedging transactions	936	1,470
Income from the disposal and write-ups of current assets	3	1
Non-operating income	**192,461**	**107,760**
Other operating income	**211,648**	**123,933**

The increase in other operating income is mainly due to income from disposal / deconsolidation of consolidated companies. The income of EUR 156,494k results from the deconsolidation of the Haema AG in June 2018.

Income from currency translation increased due to a positive ZAR development. The decline in income from the reversal of provisions is mainly attributable to the lower level of reversal of provisions in the FFT Group.

Government grants mainly consist of government grants in the form of training subsidies and research and development grants.

Miscellaneous operating income and non-operating income consists of a large number of small individual items.

9. Cost of materials

The cost of materials breaks down as follows:

in EUR '000	2018	2017
Cost of raw materials, consumables and supplies and of purchased merchandise	524,498	603,418
Cost of purchased services	367,872	314,116
Cost of materials	**892,370**	**917,534**

The cost of raw materials, consumables and supplies and of purchased merchandise allocates to the business segments as follows:

in EUR '000	2018	2017
AT Engineering	356,586	391,588
AT Mining	79,798	89,878
AT Med Tech	77,509	113,857
AT Aviation	9,374	9,535
Holding/Consolidation	1,231	- 1,440
Cost of materials	**524,498**	**603,418**

The costs mainly relate to expenses for purchased models and small parts as well as deliveries of materials for construction activities and plant construction.

The cost of purchased services can be allocated as follows:

in EUR '000	2018	2017
AT Engineering	273,897	258,741
AT Mining	51,614	15,446
AT Med Tech	3,304	4,424
AT Aviation	39,165	36,373
Holding/Consolidation	- 108	- 868
Cost of purchased services	**367,872**	**314,116**

The cost of purchased services primarily consists of costs for subcontractors.

10. Personnel expenses

The personnel expenses are attributable to the following items:

in EUR '000	2018	2017
Wages and salaries	924,988	699,488
Expenses for social security, retirement and other employee benefit expenses	169,271	126,600
Personnel expenses	**1,094,259**	**826,088**

The expenses for retirement include the cost of defined benefit pension commitments, among other items. Due to its financial character the net interest expense of the provisions for pensions is recorded in the financial result. For the presentation of the pension commitments, please see Note **28**. **Provisions for pensions**.

The average number of employees of the companies included in the consolidated financial statements during the financial year, broken down by groups, is as follows in comparison with the previous year:

Number	2018	2017
Industrial workers	4,342	4,762
Salaried staff	13,424	9,823
Total employees excluding trainees	**17,766**	**14,585**
Trainees	912	976

11. Other operating expenses

The other operating expenses comprise the following:

in EUR '000	2018	2017
Operating expenses		
Rental and lease payments	62,408	44,596
Travelling expenses	61,859	50,293
Administration costs	41,860	36,831
Legal and consulting costs, audit costs	39,850	23,573
Maintenance	32,365	23,416
Selling and marketing costs	28,754	32,388
Other incidental personnel expenses	14,181	9,428
Miscellaneous operating expenses	8,944	8,338
Education and training costs	7,030	5,845
Expenses from additions to provisions	6,721	13,998
Other taxes and levies	6,407	6,571
Insurances	5,895	4,561
Expenses from cost transfers third parties	5,690	4,255
Car expenses	3,689	3,334
Expenses from security services	2,120	1,756
Incidental rental costs and cleaning expenses	1,985	2,840
Incidental costs of monetary transactions	1,420	472
Research and development costs	639	1,028
Non-deductible input tax	428	904
Expenses from additions to specific valuation allowances	-	4,663
Bad debt expenses	-	1,173
Operating expenses	**332,245**	**280,263**
Non-operating expenses		
Currency translation losses	23,082	21,915
Expenses from the disposal of property, plant and equipment	1,419	510
Miscellaneous non-operating expenses	722	188
Expenses from other periods	349	458
Expense from hedging transactions	-	502
Expenses from the disposal of consolidated companies	-	1,535
Non-operating expenses	**25,572**	**25,108**
Other operating expenses	**357,817**	**305,371**

The increase in the other operating expenses mainly results from the full consolidation of the EDAG Group in 2018. At the same time, the sale of Haema AG in June 2018 and the sale of the W.O.M. Group in July 2017 reduce the increase in other operating expenses.

Legal and consulting costs as well as audit costs in 2018 were significantly influenced by the activities related to the acquisition of shares in the listed Murray & Roberts Holdings Limited and the sale of the FFT GmbH Group.

Expenses from addtions to provisions declined compared to previous year. The can be traced to lower additions to provisions for onerous contracts at the FFT Group.

The miscellaneous operating expenses and miscellaneous non-operating expenses comprise a large number of small, non-material individual items.

12. Result from investments accounted for using the equity method

The result from investments accounted for using the equity method amounts to EUR 14,155k (previous year: EUR 2,020k). For further information please refer to note **20**. **Investments accounted for using the equity method**.

13. Net interest expense

The net interest expense comprises the following:

in EUR '000	2018	2017
Interest income		
Interest and similar income from related parties	1,276	3,338
Interest income from credit institutions	3,114	928
Other interest income	312	404
	4,702	**4,670**
Interest expense		
Interest expense to credit institutions and bondholders	15,226	13,289
Interest portion of finance lease agreements	1,402	767
Interest and similar expense to related parties	617	359
Net interest expense from defined benefit pension plans	748	47
Other interest expense	5,650	5,579
	23,643	**20,041**
	- 18,941	**- 15,371**

14. Other financial result

The other financial result comprises the following:

in EUR '000	2018	2017
Other financial income		
Interest and dividend income from securities	2,715	2,591
Gains from fair value measurement	1,378	9,993
Income from sale of securities	919	1,552
Income from the reversal of specific valuation allowances	-	499
Other financial income	126	156
	5,138	**14,791**
Other financial expense		
Losses from fair value measurement	16,946	881
Write-downs on securities	3	35
Losses from sales of securities	457	312
Other financial expense	726	52
	18,132	**1,280**
Other financial result	**- 12,994**	**13,511**

15. Income taxes

The income taxes reported include the actual taxes on income in the respective countries as well as deferred taxes.

The income taxes for the financial years 2018 and 2017 break down as follows:

in EUR '000	2018	2017
Income taxes		
Income taxes for the current year	37,349	33,931
Income taxes for previous years	599	476
Income from the reversal of provisions for income taxes	- 70	- 79
	37,878	**34,328**
Deferred taxes		
Deferred taxes from temporary differences	20	1,587
Deferred taxes on losses carried forward	- 2,814	198
	- 2,794	**1,785**
Income taxes	**35,084**	**36,113**

In December 2018, a profit and loss transfer agreement was concluded between ATON GmbH and ATON 2 GmbH. As a result, there is a tax group for income tax purposes between ATON GmbH and ATON 2 GmbH since 2018 and the tax expense is thus reported at the level of the parent company ATON 2 GmbH. For the purpose of the tax reconciliation, however, a tax rate at the level of ATON GmbH is assumed, which would result if there were no tax group.

Unchanged from the previous year, current income taxes in Germany are based on a uniform corporate income tax rate of 15.0 % plus a solidarity surcharge of 5.5 % of this amount. In addition to the corporate income tax, trade tax is levied on profits generated in Germany. Taking into consideration that trade tax cannot be deducted as an operating expense, the average trade tax rate is 15.05 %, resulting in an average composite tax rate of 30.88 % for Germany. The higher assessment rate at the domicile of the parent company leads to a higher composite tax rate of 32.98 % unchanged to prior year.

The profit generated by foreign subsidiaries is calculated based on the regulation of the national tax law and using the tax rates applicable in the individual foreign countries. Tax rates applied by the foreign companies vary between 9.0 % and 35.0 % (in previous year between 9.0 % and 39.0 %).

The income taxes of the reporting period amounting to EUR 35,084k (previous year: EUR 36,113k) are reconciled as follows from the expected income tax expense, that would have resulted if the parent's statutory income tax rate had been applied to the earnings before income taxes (EBT):

	2018		2017	
	EUR '000	**in %**	**EUR '000**	**in %**
Earnings before income taxes (EBT)	**203,062**		**143,715**	
Income tax rate of the parent		32.98%		32.98%
Expected income tax expense	**66,970**		**47,390**	
Tax-free income and non-deductible expenses, incl. the effect of sections 8a / 8b of the KStG (corporate tax law)	- 49,311	-24.28%	- 15,162	-10.55%
Income taxes for previous years	473	0.23%	599	0.42%
Tax rate variances	- 6,477	-3.19%	- 1,349	-0.94%
Amount of tax losses carried forward and other deferred tax assets not recognised or impaired	19,131	9.42%	6,946	4.83%
Effects from the recognition of previously unused tax loss carry forwards	- 3,841	-1.89%	29	0.02%
Non-deductible withholding taxes	3,415	1.68%	1,627	1.13%
Other tax effects	4,724	2.33%	- 3,967	-2.76%
Income taxes reported in the consolidated income statement	**35,084**		**36,113**	
Effective tax rate		**17.27%**		**25.13%**

Tax-free income in current and previous year mainly result from the income from the sale of affiliates.

The current and deferred taxes in the consolidated statement of financial position changed as follows:

in EUR '000	**31.12.2018**	**31.12.2017**
Current income taxes in the consolidated statement of financial position		
Income tax assets	9,193	18,803
Income tax liabilities	- 9,193	- 14,293
Provisions for income taxes	- 5,632	- 7,822
	- 5,632	**- 3,312**
Deferred taxes in the consolidated statement of financial position		
Deferred tax assets	14,699	15,314
Deferred tax liabilities	- 76,104	- 81,797
	- 61,405	**- 66,483**
Income taxes in the consolidated statement of financial position	**- 67,037**	**- 69,795**

The deferred tax assets and liabilities are attributable to the following items in the consolidated statement of financial position:

in EUR '000	31.12.2018	31.12.2017
Deferred tax assets		
Intangible assets	1,884	2,810
Property, plant and equipment	450	1,573
Financial assets	1,621	1,921
Inventories	17,139	6,825
Receivables and other assets	4,782	7,367
Provisions for pensions	6,811	6,276
Other provisions	4,631	3,642
Other liabilities	66,686	86,550
Losses carried forward	17,325	14,787
Netting	- 106,630	- 116,437
	14,699	**15,314**
of which: non-current before netting	**28,091**	**27,367**
Deferred tax liabilities		
Intangible assets	48,910	58,359
Property, plant and equipment	17,210	17,249
Financial assets	44	1,981
Inventories	37	400
Receivables and other assets	90,195	94,498
Provisions for pensions	-	-
Other provisions	25,595	24,600
Other liabilities	743	1,147
Netting	- 106,630	- 116,437
	76,104	**81,797**
of which: non-current before netting	**66,164**	**77,589**
Deferred taxes, net	**- 61,405**	**- 66,483**

The deferred taxes changed as follows:

in EUR '000	2018	2017
Deferred taxes as of 31.12.2017	- 66,483	- 8,484
Restatement IFRS 9 / IFRS 15	96	-
Deferred taxes at the beginning of the financial year	- 66,387	- 8,484
Changes in the scope of consolidation	- 990	- 58,812
Recognised in profit or loss	2,794	- 1,785
Recognised directly in equity	474	159
Currency translation differences	2,704	2,439
Deferred taxes at the end of the financial year	**- 61,405**	**- 66,483**

The changes in the scope of consolidation in the current year in the amount to EUR -990k and relate to the disposal of Haema. The changes in the previous year in the amount of EUR -58,812k mainly related to the consolidation of the EDAG Group.

Deferred taxes are assessed on a regular basis. The ability to realise tax income from deferred taxes depends on the ability to generate taxable income in the future and to use tax losses carried forward before they expire. Deferred tax assets are recognised to the extent to which it is probable that taxable profit will be available against which deductible temporary differences can be utilised and where the assumption can be made that they will reverse in the foreseeable future.

Deferred tax assets and liabilities are offset, where a legally enforceable right to set off current tax assets against current tax liabilities exists. In addition, tax assets and liabilities have to relate to the income taxes of the same taxable entity and have to be levied by the same tax authority.

The domestic and foreign corporate income tax losses carried forward were as follows as of the reporting dates:

in EUR '000	2018	2017
Losses carried forward (total)		
Losses carried forward expire within		
1 year	17,715	8,742
2 to 5 years	46,173	42,991
over 5 years	36,275	41,018
carried forward indefinitely	97,905	100,338
	198,068	**193,089**
Losses carried forward (not usable)		
Losses carried forward expire within		
1 year	3	57
2 to 5 years	277	559
over 5 years	36,275	33,639
carried forward indefinitely	97,905	100,338
	134,460	**134,593**
Expected use of usable tax losses carried forward		
1 year	17,712	8,685
2 to 5 years	45,896	42,432
over 5 years	-	7,379
	63,608	**58,496**

As of 31 December 2018, trade tax losses carried forward amount to EUR 79,583k (previous year: EUR 77,672k); thereof deferred tax assets were not recognised for an amount of EUR 79,482k (previous year: EUR 70,410k).

16. Goodwill and other intangible assets

The development of goodwill and other intangible assets is as follows during the financial year:

in EUR '000	Acquired goodwill	Develop-ment costs	Other acquired intangible assets	Advance payments	Total other intangible assets
Acquisition and production cost					
As of 1 January 2018	**292,292**	19,547	320,571	838	**340,956**
Changes in the scope of consolidation	**-14,641**	0	-10,996	-15	**-11,011**
Additions	**0**	3,744	7,617	464	**11,825**
Disposals	**0**	-6,681	-17,257	0	**-23,938**
Reclassifications	**0**	0	596	-624	**-28**
Reclassification under IFRS 5	**0**	0	0	0	**0**
Currency translation differences	**-1,793**	17	81	1	**99**
As of 31 December 2018	**275,858**	**16,627**	**300,612**	**664**	**317,903**
Accumulated depreciation, amortisation and impairment losses					
As of 1 January 2018	**6,389**	11,118	132,722	0	**143,840**
Changes in the scope of consolidation	**0**	0	-9,493	0	**-9,493**
Depreciation, amortisation and impairment 2018	**0**	2,635	39,476	0	**42,111**
Depreciation and amortisation	**0**	2,635	39,424	0	**42,059**
Impairment losses	**0**	0	52	0	**52**
Disposals	**0**	-6,681	-17,226	0	**-23,907**
Reclassifications	**0**	0	18	0	**18**
Reclassifications under IFRS 5	**0**	0	0	0	**0**
Currency translation differences	**0**	17	82	0	**99**
As of 31 December 2018	**6,389**	**7,089**	**145,579**	**0**	**152,668**
Carrying amounts					
As of 1 January 2018	285,903	8,429	187,849	838	197,116
As of 31 December 2018	269,469	9,538	155,033	664	165,235

The development of goodwill and other intangible assets is as follows during the previous year:

in EUR '000	Acquired goodwill	Develop-ment costs	Other acquired intangible assets	Advance payments	Total other intangible assets
Acquisition and production cost					
As of 1 January 2017	**151,747**	15,930	86,310	873	**103,113**
Changes in the scope of consolidation	**166,610**	3,792	242,677	-	**246,469**
Additions	**-**	2,808	7,915	792	**11,515**
Disposals	**-**	-	- 1,818	- 6	**- 1,824**
Reclassifications	**-**	-	1,464	- 812	**652**
Reclassification under IFRS 5	**- 22,931**	- 2,933	- 13,299	-	**- 16,232**
Currency translation differences	**- 3,134**	- 50	- 2,678	- 9	**- 2,737**
As of 31 December 2017	**292,292**	**19,547**	**320,571**	**838**	**340,956**
Accumulated depreciation, amortisation and impairment losses					
As of 1 January 2017	**13,399**	9,605	73,067	-	**82,672**
Changes in the scope of consolidation	**-**	1,606	52,327	-	**53,933**
Depreciation, amortisation and impairment 2017	**-**	2,117	23,638	-	**25,755**
Depreciation and amortisation	**-**	2,117	23,636	-	**25,753**
Impairment losses	**-**	-	2	-	**2**
Disposals	**-**	-	- 1,775	-	**- 1,775**
Reclassifications	**-**	- 180	223	-	**43**
Reclassifications under IFRS 5	**- 7,010**	- 1,980	- 12,670	-	**- 14,650**
Currency translation differences	**-**	- 50	- 2,088	-	**- 2,138**
As of 31 December 2017	**6,389**	**11,118**	**132,722**	**-**	**143,840**
Carrying amounts					
As of 1 January 2017	138,348	6,325	13,243	873	20,441
As of 31 December 2017	285,903	8,429	187,849	838	197,116

The disposal from changes in the scope of consolidation of the acquired goodwill results from the sale of Haema AG with effect from 4 June 2018. In the previous year, additions from changes in scope of consolidation resulted from the fully consolidated EDAG Group since July 2017 (EUR 161,727k) and the acquisitions of the EDAG Group in the second half of 2017 (EUR 4,883k). The disposal of goodwill from the deconsolidation of W.O.M. Group in the previous year (net EUR 15,921k) was shown in the line reclassification under IFRS 5.

Capitalised development costs relate to various smaller amounts for intangible assets internally generated by the affiliated companies. In addition to the capitalised development costs, research and development costs of EUR 639k (previous year: EUR 1,028k) were recognised as expenses.

The changes in the scope of consolidation of other acquired intangible assets in the financial year 2018 result from the sale of Haema AG with the effect from 4 June 2018. The disposals of other acquired intangible assets are mainly attributable to OrthoScan Inc. and relate to already fully depreciated assets.

No borrowing costs were capitalised in the financial year. The purchase commitments for intangible assets amounted to EUR 0k as of 31 December 2018 (previous year: EUR 99k).

As in the previous year, intangible assets are not subject to any restrictions on title. The intangible assets do not include any assets acquired under finance leases. No government grants were deducted from acquisition and production cost either in the reporting period or in the previous year.

The carrying amounts of the goodwill attributable to the acquired companies have been allocated to the following cash-generating units:

in EUR '000	**31.12.2018**	**31.12.2017**
EDAG	166,003	166,024
FFT / Reform / DHMS	15,443	15,395
Goodwill AT Engineering	**181,446**	**181,419**
Goodwill AT Mining	**42,639**	**44,460**
Ziehm/OrthoScan	45,384	45,383
Haema	-	14,641
Goodwill AT Med Tech	**45,384**	**60,024**
Goodwill	**269,469**	**285,903**

The Group tests its goodwill for impairment at least once a year. As of 31 December 2018, all goodwill items were subject to an impairment test conducted as presented in note **3.1. Goodwill** by comparing the carrying amounts with the value in use as recoverable amount. The value in use is determined using the discounted cash flow method. For the financial year 2018 there is no impairment.

Within the segment AT Engineering the increase and within the segment AT Mining the decrease in goodwill is only related to currency translation effects.

Within the segment AT Med Tech the decrease in goodwill is only due to the sale of Haema AG as of 4 June 2018.

The determination of the recoverable amounts is based on the following basic assumptions:

	2018	**2017**
Planning period	3 years	3 years
Growth rate	1.00%	1.00% - 1.50%
Expected market return	6.75% to 9.36%	6.81% to 7.38%
Return for risk-free investments	1.25% to 3.36%	1.31% to 2.25%
Post-tax discount rate	5.87% to 9.71%	5.71% to 9.98%

The recoverable amounts are significantly above the carrying amounts as of balance sheet date and thus, no detailed presentation of sensitivity analysis is considered necessary.

17. Property, plant and equipment and investment properties

The development of property, plant and equipment and investment properties is as follows in the financial year:

in EUR '000	**Land, land rights and buildings, including buildings on third party land**	**Technical equipment and machinery**	**Other equipment, operating and office equipment**	**Advance payments for and construc-tion in progress**	**Total property, plant and equipment**
Acquisition and production cost					
As of 1 January 2018	112,305	297,629	158,966	21,115	**590,015**
Changes in the scope of consolidation	-15,507	-16,599	-28,403	-54	**-60,563**
Additions	2,813	46,624	19,883	78,840	**148,160**
Disposals	-774	-35,057	-12,658	-9,815	**-58,304**
Reclassifications	132	11,068	243	-11,416	**27**
Currency translation differences	-589	-14,337	-30	839	**-14,117**
As of 31 December 2018	**98,380**	**289,328**	**138,001**	**79,509**	**605,218**
Accumulated depreciation, amortisation and impairment losses					
As of 1 January 2018	40,344	117,903	107,023	42	**265,312**
Changes in the scope of consolidation	-3,053	-10,822	-21,281	-	**-35,156**
Depreciation, amortisation and impairment 2018	7,558	41,993	16,761	1,457	**67,769**
Depreciation and amortisation	5,587	41,656	16,669	-	**63,912**
Impairment losses	1,971	337	92	1,457	**3,857**
Disposals	-387	-31,340	-12,240	-314	**-44,281**
Reclassifications	16	-57	23	-	**-18**
Currency translation differences	-398	-8,963	-81	33	**-9,409**
As of 31 December 2018	**44,080**	**108,714**	**90,205**	**1,218**	**244,217**
Carrying amounts					
As of 1 January 2018	71,961	179,726	51,943	21,073	324,703
As of 31 December 2018	54,300	180,614	47,796	78,291	361,001

The development of property, plant and equipment is as follows during the previous year:

in EUR '000	Land, land rights and buildings, including buildings on third party land	Technical equipment and machinery	Other equipment, operating and office equipment	Advance payments for and construc-tion in progress	Total property, plant and equipment
Acquisition and production cost					
As of 1 January 2017	87,557	232,780	84,381	11,312	**416,030**
Changes in the scope consolidation	29,585	53,770	73,918	1,364	**158,637**
Additions	5,995	41,775	13,390	27,471	**88,631**
Disposals	-464	-17,952	-6,749	-283	**-25,448**
Reclassifications	585	14,255	689	-16,227	**-698**
Reclassifications under IFRS 5	-10,008	-9,412	-5,349	-2,167	**-26,936**
Currency translation differences	-945	-17,587	-1,314	-355	**-20,201**
As of 31 December 2017	**112,305**	**297,629**	**158,966**	**21,115**	**590,015**
Accumulated depreciation, amortisation and impairment losses					
As of 1 January 2017	28,515	77,462	56,439	22	**162,438**
Changes in the scope consolidation	12,406	31,535	46,101	-	**90,042**
Depreciation, amortisation and impairment 2017	3,913	36,663	13,572	-	**54,148**
Depreciation and amortisation	3,913	36,376	13,229	-	**53,518**
Impairment losses	-	287	343	-	**630**
Disposals	-270	-13,249	-5,413	-	**-18,932**
Reclassifications	-	-300	242	-1	**-59**
Reclassifications under IFRS 5	-3,694	-4,918	-2,957	21	**-11,548**
Currency translation differences	-526	-9,290	-961	-	**-10,777**
As of 31 December 2017	**40,344**	**117,903**	**107,023**	**42**	**265,312**
Carrying amounts					
As of 1 January 2017	59,042	155,318	27,942	11,290	253,592
As of 31 December 2017	71,961	179,726	51,943	21,073	324,703

Land and buildings decreased from EUR 71,961k to EUR 54,300k mostly because of the sale of the Haema AG in the segment AT Med Tech.

The additions to and disposals of technical equipment and machinery, as well as advance payments and construction in progress primarily relate to technical equipment for major projects in the segment AT Mining.

Impairment losses on land and buildings in the amount of EUR 1,971k and on construction in progress in the amount of EUR 1,457k have been recognise in the financial year. Since the land and the buildings and the related assets under construction will no longer be used in the operational process in the future, they were impaired to the estimated current market value.

Property, plant and equipment in the amount of EUR 25,835k (previous year: EUR 16,510k) was used as collateral for liabilities. Property, plant and equipment is subject to restrictions on title in the amount of EUR 25,442k (previous year: EUR 16,070k) which mainly results from the AT Mining segment. Property, plant and equipment includes assets in the amount of EUR 40,456k (previous year: EUR 31,858k) acquired as finance leases. The purchase commitments for property, plant and equipment amount to EUR 29,243k as of 31 December 2018 (previous year: EUR 28,955k).

There are no investment properties in financial year 2018 nor in 2017.

In financial year 2018 as well as in previous year no borrowing costs were capitalised.

18. The Group as lessee

The carrying amounts of property, plant and equipment accounted for under finance leases, other than sale-and-lease-back arrangements, are as follows as of 31 December 2018 and 31 December 2017:

in EUR '000	31.12.2018	31.12.2017
Technical equipment and machinery	36,686	28,934
Other equipment, operating and office equipment	3,770	2,924
Net carrying amounts of capitalised leased assets	**40,456**	**31,858**

All technical equipment and machinery, which amount to EUR 36,686k, is leased by Redpath Group. As in previous year, the lease terms vary between two and five years.

The increase in other equipment, operating and office equipment results mainly from the EDAG Group, which has been fully consolidated since July 2017.

As of the reporting date, future obligations arising from finance leases, other than sale-and-lease-back arrangements are as follows:

	2018			2017		
in EUR '000	Minimum lease payments	Interest portion included	Present values	Minimum lease payments	Interest portion included	Present values
Maturity						
Up to 1 year	18,291	2,006	16,285	11,904	277	11,627
1 to 5 years	19,454	1,253	18,201	15,141	210	14,931
Over 5 years	-	-	-	-	-	-
Total	**37,745**	**3,259**	**34,486**	**27,045**	**487**	**26,558**

As of the reporting date there are future obligations arising from sale-and-lease-back arrangements (finance leases) in the amount of EUR 87k (previous year: EUR 0k), which are due within one year.

There are no significant renewal or purchase option clauses regarding finance leases.

The expenses recognised and the future minimum lease payments under operating leases are as follows:

in EUR '000	2018	2017
Lease payments recognised as expense	62,408	44,596
Future lease payments (maturity)		
Up to 1 year	44,819	48,739
1 to 5 years	87,190	86,959
Over 5 years	73,728	64,239
Total	**205,737**	**199,937**

The increase in lease payments recognised as expenses is due to the full consolidation of the EDAG Group since July 2017.

Most of the obligations from non-cancellable operating leases arise from commercial real estate contracts, vehicles and technical equipment. There are no significant renewal or purchase option clauses regarding operating leases.

As in the previous year, no contingent lease payments were recognised as expenses in the financial year. In the financial year, there are no significant subleases.

19. The Group as lessor

The Group acts as lessor in operating leases, most of which relate to building premises. The contracts are normally short term without renewal options. Operating lease income recognised in profit or loss amounts to EUR 4,042k in the financial year (previous year: EUR 2,432k). The future minimum lease payments under non-cancellable operating leases mature as follows: up to one year EUR 2,522k (previous year: EUR 1,638k), one to five years EUR 1,481k (previous year: EUR 35k) and over five years EUR 0k (previous year: EUR 0k).

20. Investments accounted for using the equity method

The Group has investments in joint ventures and associates. The amounts recognised in the balance sheet in investments accounted for using the equity method are as follows:

in EUR '000	31.12.2018	31.12.2017
Investments accounted for using the equity method		
Associates	214,300	145,825
Joint Ventures	12,725	9,797
	227,025	**155,622**

The amounts recognised in the consolidated income statement are as follows:

in EUR '000	2018	2017
Result from investments accounted for using the equity method		
Associates	8,999	-563
Joint Ventures	5,156	2,583
	14,155	**2,020**

Between March and May 2018, the 30.0 % interest in Murray & Roberts Holdings Limited, Bedfordview, South Africa, was increased to 43.8 % in total through several additional purchases. Murray & Roberts Holdings Limited is listed in South Africa and is accounted for using the equity method in the present consolidated financial statements. The Group operates worldwide in engineering, construction and underground mining services. The range of services covers the areas of oil & gas, underground mining and power & water. The company has a financial year that deviates from the calendar year which lasts from 1 July to 30 June, but also publishes interim financial statements as of 31 December. The following tables present the values for the period from 1 January through 31 December 2018.

The 50.0 % interest in the joint venture Schacht Konrad 1, Dortmund, and the joint venture Schacht Konrad 2, Dortmund, are also accounted for using the equity method. These joint ventures are strategic partnerships for the Group between Deilmann-Haniel GmbH, Dortmund, and Thyssen Schachtbau GmbH. Schacht Konrad 1 and Schacht Konrad 2 offer access to the former iron ore mine in Salzgitter, which is converted at present.

The 50.0 % interest in the joint venture Associated Mining Construction Inc., Saskatchewan, Canada, is also accounted for using the equity method. Associated Mining Construction Inc. is a strategic partnership for the Group between Redpath Group and Thyssen Mining Inc. The Joint Venture was established in 2008 and offers shaft sinking solutions for challenging ground conditions.

The 50.0 % interest in the joint venture Associated Mining Construction UK Limited, Birmingham, Great Britain, is also accounted for using the equity method. Associated Mining Construction UK Limited is a strategic partnership for the Group between Redpath Group and Thyssen Group. The Joint Venture carries out large scale projects for shaft sinking, mine development, raiseboring and engineering.

The 33.0 % interest in the joint venture TRL Mining Construction LP, Regina, Canada, is also accounted for using the equity method. TRL Mining Construction LP is a strategic partnership for the Group between Redpath Group, Thyssen Mining Inc. and Ledcor Group. The joint venture was founded for the Jansen Potash Project Saskatchewan, Canada, in 2018.

Summarised financial information for the most significant investments accounted for using the equity method as of 31 December 2018 are presented in the following tables.

The summarised balance sheet is as follows:

in EUR '000				
Company	**Murray & Roberts Holdings Limited**		**Joint Venture Schacht Konrad 1**	
Nature of the relationship	Associate		Joint Venture	
	31.12.2018	**31.12.2017**	**31.12.2018**	**31.12.2017**
Interest held in %	43.80	30	50	50
Current				
Cash and cash equivalents	136,092	152,917	339	571
Other current assets (excluding cash)	386,162	463,142	4,625	3,965
Total current assets	**522,254**	**616,059**	**4,964**	**4,536**
Financial liabilities (excluding trade and other payables, provisions and tax liabilities)	-41,132	-50,522	0	0
Other liabilities (including trade and other payables, provisions and tax liabilities)	-395,215	-451,389	-859	-1,240
Total current liabilities	**-436,347**	**-501,911**	**-859**	**-1,240**
Non-current				
Assets	**306,755**	**349,062**	**500**	**536**
Financial liabilities (excluding trade and other payables, provisions and tax liabilities)	-31,957	-12,901	0	0
Other liabilities (including trade and other payables and provisions)	-19,563	-24,113	0	0
Total non-current liabilities	**-51,520**	**-37,014**	**0**	**0**
Net assets	**341,142**	**426,196**	**4,605**	**3,832**

in EUR '000				
Company	**Joint Venture Schacht Konrad 2**		**Associated Mining Construction Inc.**	
Nature of the relationship	Joint Venture		Joint Venture	
	31.12.2018	**31.12.2017**	**31.12.2018**	**31.12.2017**
Interest held in %	50	50	50	50
Current				
Cash and cash equivalents	538	473	914	8,027
Other current assets (excluding cash)	11,911	8,695	3,081	4,442
Total current assets	**12,449**	**9,168**	**3,995**	**12,469**
Financial liabilities (excluding trade and other payables, provisions and tax liabilities)	0	0	-189	-1,691
Other liabilities (including trade and other payables, provisions and tax liabilities)	-7,046	-6,501	0	-2,431
Total current liabilities	**-7,046**	**-6,501**	**-189**	**-4,122**
Non-current				
Assets	**1,433**	**1,357**	**0**	**97**
Financial liabilities (excluding trade and other payables, provisions and tax liabilities)	0	0	0	0
Other liabilities (including trade and other payables, provisions and tax liabilities)	0	0	0	0
Total non-current liabilities	**0**	**0**	**0**	**0**
Net assets	**6,836**	**4,024**	**3,806**	**8,444**

in EUR '000				
Company	**Associated Mining Construction UK Limited**		**TRL Mining Construction LP**	
Nature of the relationship	Joint Venture		Joint Venture	
	31.12.2018	**31.12.2017**	**31.12.2018**	**31.12.2017**
Interest held in %	50	50	33	0
Current				
Cash and cash equivalents	1,488	6,074	10,767	0
Other current assets (excluding cash)	2,291	951	5,262	0
Total current assets	**3,779**	**7,025**	**16,029**	**0**
Financial liabilities (excluding trade and other payables, provisions and tax liabilities)	0	-18,157	0	0
Other liabilities (including trade and other payables, provisions and tax liabilities)	-1,583	-5,886	-13,579	0
Total current liabilities	**-1,583**	**-24,043**	**-13,579**	**0**
Non-current				
Assets	**540**	**13,244**	**0**	**0**
Financial liabilities (excluding trade and other payables, provisions and tax liabilities)	-858	-868	0	0
Other liabilities (including trade and other payables, provisions and tax liabilities)	0	0	0	0
Total non-current liabilities	**-858**	**-868**	**0**	**0**
Net assets	**1,878**	**-4,642**	**2,450**	**0**

The summarised statement of comprehensive income is as follows:

in EUR '000				
Company	**Murray & Roberts Holdings Limited**		**Joint Venture Schacht Konrad 1**	
Nature of the relationship	Associate		Joint Venture	
	31.12.2018	**31.12.2017**	**31.12.2018**	**31.12.2017**
Interest held in %	43.80	30	50	50
Revenue	1,269,000	1,498,638	4,198	1,188
Depreciation and amortisation	-28,876	-31,231	-109	-52
Interest income	0	0	0	0
Interest expense	-2,049	-2,126	0	0
Profit (+) or loss (-) from continuing operations	**55,319**	**37,810**	**730**	**47**
Income tax expense (-) / income (+)	-19,976	-11,629	0	0
Profit (+) or loss (-) after tax from continuing operations	**35,343**	**26,181**	**730**	**47**
Profit (+) or loss (-) after tax from discontinuing operations	-12,997	-12,559	0	0
Other comprehensive income	17,479	-15,283	0	0
Total comprehensive income	**39,825**	**-1,661**	**730**	**47**
Dividends received	-5,670	-3,989	0	0

in EUR '000				
Company	**Joint Venture Schacht Konrad 2**		**Associated Mining Construction Inc.**	
Nature of the relationship	Joint Venture		Joint Venture	
	31.12.2018	**31.12.2017**	**31.12.2018**	**31.12.2017**
Interest held in %	50	50	50	50
Revenue	15,541	12,222	22,983	41,955
Depreciation and amortisation	-481	-682	0	-151
Interest income	0	0	346	0
Interest expense	0	0	0	0
Profit (+) or loss (-) from continuing operations	**2,759**	**1,382**	**859**	**4,155**
Income tax expense (-) / income (+)	0	0	0	-986
Profit (+) or loss (-) after tax from continuing operations	**2,759**	**1,382**	**859**	**3,169**
Other comprehensive income	0	0	0	0
Total comprehensive income	**2,759**	**1,382**	**859**	**3,169**
Dividends received	0	0	0	-1,878

in EUR '000				
Company	**Associated Mining Construction UK Limited**		**TRL Mining Construction LP**	
Nature of the relationship	Joint Venture		Joint Venture	
	31.12.2018	**31.12.2017**	**31.12.2018**	**31.12.2017**
Interest held in %	50	50	33	0
Revenue	27,918	24,816	13,787	0
Depreciation and amortisation	-241	-1,542	0	0
Interest income	0	0	0	0
Interest expense	0	0	0	0
Profit (+) or loss (-) from continuing operations	**3,356**	**-1,068**	**2,499**	**0**
Income tax expense (-) / income (+)	0	0	0	0
Profit (+) or loss (-) after tax from continuing operations	**3,356**	**-1,068**	**2,499**	**0**
Profit (+) or loss (-) after tax from discontinuing operations	0	0	0	0
Other comprehensive income	0	0	0	0
Total comprehensive income	**3,356**	**-1,068**	**2,499**	**0**
Dividends received	2,615	0	0	0

There are no commitments or contingent liabilities relating to the investments accounted for using the equity method.

The information above reflects the amounts presented in the financial statements of the investments accounted for using the equity method (and not ATON GmbH's share of those amounts).

The reconciliation of the summarised financial information related to the carrying amount of the investments accounted for using the equity method is presented in the following table:

in EUR '000								
Company	**Murray & Roberts Holdings Limited**		**Joint Venture Schacht Konrad 1**		**Joint Venture Schacht Konrad 2**		**Associated Mining Construction Inc.**	
	2018	**2017**	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**
Net assets as of 1 January	486,124	0	3,833	3,774	4,103	2,713	8,444	9,604
Additions	0	485,023	0	0	0	0	0	0
Profit (+) / loss (-) for the period	22,345	13,622	730	47	2,759	1,382	859	3,122
Other comprehensive income	17,479	0	0	0	0	0	0	0
Increase in capital	0	0	0	0	0	0	0	0
Adjustments / Disposals	0	0	0	0	0	0	0	0
Dividends received	-13,510	-12,521	0	0	0	0	-5,230	-3,755
Currency translation differences	-23,169	0	43	12	-26	8	-267	-527
Net assets as of 31 December	**489,269**	**486,124**	**4,606**	**3,833**	**6,836**	**4,103**	**3,806**	**8,444**
Interest held in %	43.8	30	50	50	50	50	50	50
Interest in investments accounted for using the equity method	214,300	145,825	2,303	1,917	3,418	2,052	1,903	4,222
Allocatable hidden reserves/burden as a result of the PPA	0	0	0	0	0	0	0	0
Goodwill	0	0	0	0	0	0	0	0
Carrying value	**214,300**	**145,825**	**2,303**	**1,917**	**3,418**	**2,052**	**1,903**	**4,222**
investments accounted for using the equity method	214,300	145,825	2,303	1,917	3,418	2,052	1,903	4,222
Receivables (+) / liabilities (-) to investments accounted for using the equity method	0	0	-1,428	-1,684	-2,047	-1,182	0	1,102

in EUR '000								
Company	**Associated Mining Construction UK Limited**		**TRL Mining Construction LP**		**Other investments accounted for using the equity method**		**Total**	
	2018	**2017**	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**
Net assets as of 1 January	0	0	0	0	3,212	159,318	505,716	175,409
Additions	56	1,084	0	0	2,079	0	2,135	486,107
Profit (+) / loss (-) for the period	3,356	-1,068	2,499	0	1,533	-1,762	34,081	15,343
Other comprehensive income	0	0	0	0	0	0	17,479	0
Increase in capital	0	0	0	0	0	0	0	0
Adjustments / Disposals	-1,048	0	0	0	0	-142,294	-1,048	-142,294
Dividends received	0	0	0	0	-102	-12,057	-18,842	-28,333
Currency translation differences	-486	-16	-49	0	-5	7	-23,959	-516
Net assets as of 31 December	**1,878**	**0**	**2,450**	**0**	**6,717**	**3,212**	**515,562**	**505,716**
Interest held in %	50	50	33	0	49 resp. 50	30 resp. 49 resp. 50	33 resp. 44 resp. 49 resp. 50	49 resp. 50 resp. 63
Interest in investments accounted for using the equity method	939	0	808	0	3,354	1,606	227,025	155,622
Allocatable hidden reserves/burden as a result of the PPA	0	0	0	0	0	0	0	0
Goodwill	0	0	0	0	0	0	0	0
Carrying value	**939**	**0**	**808**	**0**	**3,354**	**1,606**	**227,025**	**155,622**
investments accounted for using the equity method	939	0	808	0	3,354	1,606	227,025	155,622
liabilities to investments accounted for using the equity method	673	4,345	0	0	-299	-488	-3,101	2,093

For investments accounted for using the equity method, intercompany profits and losses are eliminated on a pro-rata basis in general.

21. Other financial assets

Other financial assets break down as follows:

in EUR '000	30.06.2018			31.12.2017		
	Remaining maturity			Remaining maturity		
	> 1 year	< 1 year	Total	> 1 year	< 1 year	Total
Non-consolidated investments in affiliated companies	2,597	-	2,597	2,603	-	2,603
Non-consolidated investments in associated companies (with exception of investments accounted for using the equity method)	-	-	-	1,036	-	1,036
Loans	34,769	11,882	46,651	48,861	183	49,044
Other investments	4,130	-	4,130	-	-	-
Securities measured at fair value through profit and loss	19,670	5,598	25,268	-	-	-
Securities available for sale	-	-	-	16,589	43	16,632
Securities held for trading	-	-	-	-	82,869	82,869
Fair values of derivative financial instruments	-	525	525	-	393	393
Other financial assets	**61,166**	**18,005**	**79,171**	**69,089**	**83,488**	**152,577**

The non-consolidated investments in affiliated companies or in associated companies and other investments are measured at fair value through profit and loss.

Securities, which are measured at fair value through profit and loss, mainly include managed assets by the Royal Bank of Canada Investment Management (UK) Limited and a securities deposit consisting of European corporate bonds.

In previous year, before the first time application of IFRS 9, securities available for sale amounting to EUR 16,632k were held. Those are now presented as securities, which are measured at fair value through profit and loss.

Moreover, securities held for trading existed in previous year amounting to EUR 82,869k, which exclusively consisted of Western European and US American bonds. This securities deposit was sold during the financial year 2018.

Cash flow hedges are generally used to hedge against foreign currency risks from future procurement transactions. Option and future contracts serve as hedging instruments. Fair value changes of hedging instruments relating to the effective portion are recognised in other comprehensive income until the underlying hedged item is realised. The ineffective portion of the fair value changes is recognised in the income statement. For further information please refer to note **27. Equity**.

When the hedged item is realised, the fair value changes in the hedging relationship recognised under other comprehensive income are reclassified to the income statement. The recognised fair value of the hedging instruments used for cash flow hedges amounts to EUR -2,405k as at the balance sheet date (previous year: EUR 0k). The hedged items by cash flow hedges are expected to fall due and affect net income until the end of 2019. The hedging instruments as at 31 December 2018 are exclusively US dollar forwards with maturities of less than one year. Counterparties are domestic banks with an investment-grade rating.

In reported financial year, changes in the fair value of hedging instruments in the amount of EUR -8,039k (previous year: EUR 0k) before taxes were recognized directly in other comprehensive income. Of this amount, up to the balance sheet date EUR -5,689k were reclassified to the income statement. Taking into account deferred taxes, this results in a net value of the effective portion of the hedging relationships of EUR -1,645k, which is recognized within other comprehensive income directly in equity.

The development of risk allowance for loans during financial year 2018 is as follows:

in EUR '000	Bucket 1	Bucket 2	Bucket 3	Total
As of 01 January 2018	**-92**	**0**	**0**	**-92**
Transfer to Bucket 1	0	0	0	**0**
Transfer to Bucket 2	0	0	0	**0**
Transfer to Bucket 3	0	0	0	**0**
Additions	-63	0	0	**-63**
Disposal due to settlement / Consumption	0	0	**0**	**0**
Reversal / Write-up	17	0	0	**17**
Change in the scope of consolidation	0	0	0	**0**
Currency translation differences and other changes	0	0		**0**
As of 31 December 2018	**-138**	**0**	**0**	**-138**

The development of the gross book value of loans during financial year 2018 is as follows:

in EUR '000	Bucket 1	Bucket 2	Bucket 3	Total
As of 01 January 2018	**49,043**	**0**	**0**	**49,043**
Transfer to Bucket 1	0	0	0	**0**
Transfer to Bucket 2	0	0	0	**0**
Transfer to Bucket 3	0	0	0	**0**
Additions	12,331	0	0	**12,331**
Disposal due to settlement / Consumption	-15,085	0	**0**	**-15,085**
Change in the scope of consolidation	0	0	0	**0**
Currency translation differences and other changes	500	0	0	**500**
As of 31 December 2018	**46,789**	**0**	**0**	**46,789**

The loans of EUR 46,651k (previous year: EUR 49,044k) were not overdue as of the reporting date and will be repaid as planned. There was no significant change in the gross book values, which would have led to a change in risk allowance. Individual allowances for loans were not necessary in the reporting period neither in previous year. The net decrease in loans is due to the scheduled and unscheduled repayment of loans whilst granting new loans at the same time.

22. Trade and other receivables

in EUR '000	31.12.2018		31.12.2017	
	current	non-current	current	non-current
Trade receivables	363,226	74	339,098	170
Receivables from construction contracts	0	0	430,271	0
Other receivables (financial instruments)	10,308	5,059	575	4,094
Other receivables (non financial instruments)	45,930	9	35,814	100
Carrying amount (net)	**419,464**	**5,142**	**805,758**	**4,364**

Risk allowances for receivables from goods and services developed as follows during financial year 2018:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2018	**-1,891**	**-5,147**	**-7,038**
Transfer to Bucket 2	-60	60	**-**
Transfer to Bucket 3	41	-41	**-**
Additions	-1,534	-2,223	**-3,757**
Disposal due to settlement / Consumption	279	2,873	**3,152**
Reversal / Write-up	391	84	**475**
Change in the scope of consolidation	-	-	**-**
Currency translation differences and other changes	-	-52	**-52**
As of 31 December 2018	**-2,774**	**-4,446**	**-7,220**

The gross book values of trade receivables developed as follows during financial year 2018:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2018	**422,021**	**7,288**	**429,309**
Transfer to Bucket 2	-691	-60	**-751**
Transfer to Bucket 3	-3,175	3,926	**751**
Additions	408,331	579	**408,910**
Disposal due to settlement / Consumption	-454,703	-3,382	**-458,085**
Change in the scope of consolidation	-9,616	-	**-9,616**
Currency translation differences and other changes	-27	29	**2**
As of 31 December 2018	**362,140**	**8,380**	**370,520**

There have not been significant changes in gross book values that would have led to a change in expected credit losses.

Previous year's receivables from construction contracts broke down as follows:

in EUR '000	**31.12.2017**
Accumulated direct costs	3,106,419
+ accumulated allocated gains	451,316
- accumulated allocated losses	132,742
+ accumulated currency translation differences	- 4,981
Accumulated contract revenue	**3,420,012**
- advance payments received	435,064
- partial billings	2,540,597
+ accumulated currency translations differences	- 14,080
Carrying amount	**430,271**

Contract assets in the scope of IFRS 15 are presented as a separate balance sheet position as of 31 December 2018.

Other receivables break down as follows:

in EUR '000	**31.12.2018**	**31.12.2017**
Current		
financial instruments		
Creditors with debit balances	67	6
Other receivables	10,366	575
Allowances (Buckets 1-3)	- 125	-
	10,308	**581**
No financial instruments		
Value added tax receivables	26,682	9,114
Receivables from employees	1,735	1,697
Other tax receivables	811	1,613
Other receivables	18,414	23,462
Allowances	- 1,712	- 78
	45,930	**35,808**
	56,238	**36,389**
Non-current		
financial instruments		
Other receivables	**6,060**	**5,094**
Allowances (Buckets 1-3)	- 1,001	- 1,000
	5,059	**4,094**
No financial instruments		
Other receivables	9	100
Allowances	-	-
	9	**100**
	5,068	**4,194**
Other receivables	**61,306**	**40,583**

Risk allowances for other receivables (financial instruments) developed as follows:

in EUR '000	Bucket 1	Bucket 2	Bucket 3	Total
As of 01 January 2018	**-87**	**0**	**-1,052**	**-1,139**
Transfer to Bucket 1	0	0	0	**0**
Transfer to Bucket 2	0	0	0	**0**
Transfer to Bucket 3	0	0	0	**0**
Additions	-166	0	-30	**-196**
Disposal due to settlement / Consumption	2	0		**2**
Reversal / Write-up	55	0	0	**55**
Change in the scope of consolidation	-19	0	0	**-19**
Currency translation differences and other changes	170	0	1	**171**
As of 31 December 2018	**-45**	**0**	**-1,081**	**-1,126**

The gross carrying amounts of other receivables (financial instruments) developed as follows:

in EUR '000	Bucket 1	Bucket 2	Bucket 3	Total
As of 01 January 2018	9,962	0	2,104	**12,066**
Transfer to Bucket 1	0	0	0	**0**
Transfer to Bucket 2	0	0	0	**0**
Transfer to Bucket 3	0	0	0	**0**
Additions	10,588	0	60	**10,648**
Disposal due to settlement / Consumption	-4,834	0	**0**	**-4,834**
Change in the scope of consolidation	0	0	0	**0**
Currency translation differences and other changes	-1,385	0	-2	**-1,387**
As of 31 December 2018	**14,331**	**0**	**2,162**	**16,493**

There have not been significant changes in gross book values that would have led to a change in expected credit losses.

23. Contract Assets and Liabilities

The contractual assets and liabilities are composed as follows:

in EUR '000	31.12.2018
Contract assets	289,695
AT Engineering	267,422
AT Mining	22,201
AT Med Tech	72
AT Aviation	0
Contract liabilities	194,291
AT Engineering	124,871
AT Mining	64,138
AT Med Tech	5,282
AT Aviation	0

Risk allowances for contract assets developed as follows in the reporting period:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2018	**-28**	**0**	**-28**
Transfer to Bucket 2	0	0	**0**
Transfer to Bucket 3	0	0	**0**
Additions	-23	-1	**-24**
Disposal due to settlement / Consumption	0	0	**0**
Reversal / Write-up	8	0	**8**
Change in the scope of consolidation	0	0	**0**
Currency translation differences and other changes	0	0	**0**
As of 31 December 2018	**-43**	**-1**	**-44**

The gross carrying amounts of contract assets developed as follows in the reporting period:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2018	**346,135**	**0**	**346,135**
Transfer to Bucket 2	0	0	**0**
Transfer to Bucket 3	0	0	**0**
Additions	86,100	0	**86,100**
Disposal due to settlement / Consumption	-142,496	**0**	**-142,496**
Change in the scope of consolidation	0	0	**0**
Currency translation differences and other changes	0	0	**0**
As of 31 December 2018	**289,739**	**0**	**289,739**

There is no significant change in the gross carrying amounts, which has led to a change of allowance for contract assets.

in EUR '000	31.12.2018
Revenue recognised in the reporting period from performance obligations satisfied (or partially satisfied) in previous periods	0

For some Group entities, revenue recognised in the reporting period from performance obligations satisfied (or partially satisfied) in previous periods may not be reported separately because changes in the transaction price typically also result in changes in the scope of the projects in the current reporting period. Therefore the scope of change in the transaction price without considering adjustments of performance obligation cannot be determined.

Contract assets exist in the segments AT Engineering, AT Mining and AT Med Tech and reflect the claim for a consideration for the complete performance of the contractual services. Receivables are recognised when the right to receive a consideration becomes unconditional. Thereby, the Group receives advance payments from customers, which are presented net with contract assets or as contract liabilities. As soon as the contractual services are rendered, revenue is recognised.

The following table presents the significant changes in the contract assets and liabilities:

in EUR '000	2018	
	Contract Assets	**Contract Liabilities**
Contract asset / Contract liability at the beginning of the reporting period	**346,107**	**-224,511**
Revenue recognised in the reporting period that was included in the contract liability balance at the beginning of period	0	139,582
Reclassification of contract assets at the beginning of period to accounts receivable (due to invoicing)	-268,740	0
Increase of contract liability / Decrease of contract assets due to payments received, with exception of amounts that have been recognised as revenue during the period	-152,639	-246,743
Increase due to change in measure of progress (which have still not resulted in accounts receivable)	507,266	0
Net changes in allowances / impairment for contract assets	16	0
Changes due to business combinations	0	0
Reclassifications between contract assets and contract liabilities since the net amount of contract asset and payments received is changing the sign (+/-)	-136,423	133,227
Currency translation difference for contract assets / liabilities	-1,325	-1,351
other significant changes in contract balances	-4,567	5,505
Contract asset / Contract liability at the end of the reporting period	**289,695**	**-194,291**

The transaction price allocated to the outstanding performance obligations as of 31 December 2018 is as follows:

in EUR '000	up to 1 year	1 - 5 years	> 5 years	Total
	129,406	64,757	128	194,291

As revenues in the segment AT Mining are recognised for satisfied performance obligations in accordance with IFRS 15.B16, use is made of the practical expedient in IFRS 15.121 (b) and therefore no disclosure is made for the open transaction price for unsatisfied performance obligations as required by IFRS 15.120.

In financial year 2018 there are no incremental costs of obtaining a contract with a customer or costs to fulfil a contract which would have to be capitalized.

24. Inventories

The carrying amount of the inventories amounting to EUR 153,571k (previous year: EUR 139,465k), breaks down as follows:

in EUR '000	31.12.2018	31.12.2017
Raw materials, consumables and supplies	38,877	37,303
Unfinished goods, work in progress	14,456	10,284
Finished goods	14,559	17,155
Merchandises	54,221	44,370
Advance payments	31,458	30,353
Inventories	**153,571**	**139,465**

Inventories are written down to the lower net realisable value if this amount is lower than the acquisition or production costs. The carrying amount of the inventories measured at the net realisable value amounts to EUR 22,085k (previous year: EUR 0k). Total write-downs amounted to EUR 11,392k (previous year: EUR 11,461k). As in the previous year, the impairment losses were fully recognised in cost of materials.

Unchanged to previous year no inventories were pledged as collateral for liabilities.

25. Cash and cash equivalents

in EUR '000	31.12.2018	31.12.2017
Cash and bank balances	559,291	187,106
Other cash equivalents	18	15
Cash in transit	0	250
Cash and cash equivalents	**559,309**	**187,371**

For details of changes in cash and cash equivalents, please refer to the consolidated statement of cash flows. As of 31 December 2018, the Group cannot freely dispose over a portion amounting to EUR 274,326k (previous year: EUR 827k), of which EUR 274,165k were deposited in an escrow account for the takeover bid for Murray & Roberts.

26. Assets held for sale / liabilities associated with assets held for sale

As of balance sheet date no items are classified as assets held for sale or liabilities associated with assets held for sale, respectively.

In the **segment AT Aviation** the following items were classified as assets held for sale in accordance with IFRS 5 in the previous year:

As of 31 December 2017, DC Aviation GmbH classified one aircraft and spare parts amounting to EUR 2,342k (before impairment) as assets held for sale in accordance with IFRS 5, since those assets had no further use within the operating business. The assets have been handed over to an aircraft broker for resale. The sale of the aircraft took place on 13 July 2018.

Already as of 31 December 2017 a write-down of EUR 1,175k was made to the then expected selling price. In 2018 a further write-down of EUR 352k to the future selling price was necessary.

In the **segment AT Engineering** the following assets and liabilities of the Reform Grinding Technology GmbH were classified as assets held for sale / liabilities associated with assets held for sale as of 31 December 2017 due the share purchase and transfer agreement for the Reform Grinding Technology GmbH, which became effective with closing as of 30 January 2018 (fair value hierarchy measurement level 1):

in EUR '000	31.12.2017
Other intangible assets	14
Property, plant and equipment	72
Trade and other receivables	3,815
Inventories	915
Cash and cash equivalents	205
Assets held for disposal	**5,021**

in EUR '000	31.12.2017
Other provisions	179
Trade and other payables	2,392
Deferred tax liabilities	48
Liabilities associated with assets held for disposal	**2,619**

As part of the fair value measurement (devaluation of the disposal group to the sale price) before reclassification in accordance with IFRS 5, taking into account the resumption of the previously consolidated intercompany receivables at the moment of the company's disposal, a loss in the amount of EUR 1,544k was recognised as an impairment loss on fixed assets under depreciation and amortisation or as an impairment on inventories, receivables and other assets under other operating expenses. The sale on 30 January 2018 did not have any further effect on the consolidated income statement.

In addition, assets held for sale amounting to EUR 3,200k existed at the EDAG Group within the segment AT Engineering already as of 31 December 2017. Those assets related to a real estate valued at EUR 4,242k at the time of initial consolidation of the EDAG Group. As part of the subsequent valuation in the course of the year 2017, an impairment loss of EUR 1,042k was recognised to the expected fair value less costs to sell of EUR 3,200k. In the second quarter of 2018, a sales agreement was signed. The transfer of rights and obligations took place with payment in July 2018.

In the **segment AT Med Tech** and in the **segment AT Mining**, there were no assets held for sale in accordance with IFRS 5 as of 31 December 2017.

27. Equity

Details of the development of the equity between 1 January and 31 December 2018 and the previous period are presented in the Group's statement of changes in equity.

Subscribed capital

The subscribed capital of EUR 15,000k (previous year: EUR 15,000k) corresponds to the equity item reported by the parent (ATON GmbH). As of 31 December 2018, the share capital of EUR 15,000k is fully paid in.

Capital reserve

The capital reserve as of 31 December 2018 is at EUR 629,168k (previous year: EUR 629,168k).

Other reserves

In the other reserves, the revenue reserves and profit or loss of previous years attributable to shareholders (profit or loss carried forward), the current net profit or loss attributable to shareholders, reserves from the transition from HGB (German GAAP) to IFRS accounting, reserves from the transition to IFRS 9 plus IFRS 15 and total other comprehensive income are reported.

Other comprehensive income contains currency translation differences, effects from remeasurements of defined benefit plans, the effective part of changes from cash flow hedges as well as changes in the fair values of financial assets available for sale under IAS 39 (until end of 2017). The currency translation differences include the differences from translating the currencies of financial statements of foreign subsidiaries, which are recognised directly in equity.

In 2018 no payments to shareholders at ATON GmbH were made. However a profit and loss transfer agreement was closed on 30 November 2018 between ATON 2 GmbH and ATON GmbH. This transfer of profit and loss in the amount of EUR 146,046k is represented as a transaction with owners in IFRS. To minority shareholders at the level of affiliates EUR 6,467k were paid in the current financial year (previous year: EUR 33k).

in EUR '000	31.12.2018	31.12.2017
Retained earnings including profit or loss		
Revenue reserves and profit (+) or loss (-) carried forward	366,250	415,638
Profit attributable to the owners	166,774	107,743
Reserve from the transition to IFRSs/ revaluations reserve IFRS 9 and 15 (incl. deferred taxes)	244	2,194
	533,268	**525,575**
Other comprehensive income		
Currency translation differences	-38,027	-29,938
Remeasurements of defined benefit plans	-2,888	-3,504
Effective part of changes from cash flow hedges	-1,645	0
Fair value valuation of available-for-sale financial assets	0	418
	-42,560	**-33,024**
Other reserves	**490,708**	**492,551**

The reserves from cash flow hedges relates to the effective portion of the hedging relationship from currency hedging and developed as follows:

in EUR '000	31.12.2018	31.12.2017
Reserves from cash flow hedges as of 1 January (net of tax)		
Change due to effective hedge relationship	-8,039	0
Termination of hedge relationships due to P&L impact of underlying transaction	5,689	0
Change in deferred taxes	705	0
Reserves from cash flow hedges as of 31 December (net of tax)	**-1,645**	**0**

Non-controlling interests

The non-controlling interests is attributable to the following companies:

in EUR '000	31.12.2018	31.12.2017
EDAG subgroup	43,469	53,877
FFT subgroup	4,062	3,883
ATM subgroup	-3,501	-1,780
Total non-controlling interests	**44,030**	**55,980**

Non-controlling interests in the EDAG subgroup result from the fact that the ATON Group only hold 70.7 % of the interest in EDAG Engineering Group AG, Arbon, Switzerland.

Non-controlling interests at FFT subgroup mainly result from EDAG Werkzeug + Karosserie GmbH. ATON GmbH holds 51.0 % of this company via the fully consolidated FFT Group and the other 49.0 % via the again fully consolidated EDAG Group. Taking into account the proportion of the shareholding the EDAG Group, 85.6 % of EDAG Werkzeug + Karosserie GmbH are thus attributable to the majority shareholder.

The non-controlling interests in the FFT subgroup and the ATM subgroup are not material as in previous year, so that no information is presented for balance sheet, income statement and cash flow statement for subsidiaries with non-controlling interests.

The following table presents information regarding the material, non-controlling interests in the EDAG Group (after effects from purchase price allocation):

in EUR '000	31.12.2018	31.12.2017
Percentage of non-controlling interests	29.3	34.3
Non-current assets	227,841	254,900
Current assets	289,077	240,184
Non-current liabilities	-199,291	-86,927
Current liabilities	-174,217	-194,179
Net assets	**143,410**	**213,978**
Net assets corresponding to non-controlling interests	**42,076**	**73,394**
Revenue	758,614	344,863
Profit or loss for the period	8,127	69
Other comprehensive income, net of income taxes	123	-1,595
Total comprehensive income to non-controlling interest	**8,250**	**-1,526**
Profit or loss for the period corresponding to non-controlling interests	2,786	45
Other comprehensive income (net of taxes) corresponding to non-controlling interests	36	-216
Cash flow from operating activities	64,863	46,728
Cash flow from investing activities	-21,224	-13,907
Cash flow from financing activities	6,942	-41,045
Net reduction of cash and cash equivalents	**50,581**	**-8,224**

The development of the non-controlling interests in equity is shown in the table below:

in EUR '000	2018	2017
As of 1 January (before restatements)	**55,980**	**5,467**
Restatement due to application of IFRS 9	**- 34**	**-**
Restatement due to application of IFRS 15	**- 18**	**-**
As of 1 January (restated)	**55,928**	**5,467**
Changes in equity recognised directly in equity		
Changes in the scope of consolidation	0	52,898
Currency translation differences from translation of financial statements of foreign subsidiaries	48	- 320
Dividend payments	- 6,467	- 33
Change in non-controlling interest due to step acquisition	- 6,897	- 1,672
Other changes in equity	214	- 219
	- 13,102	**50,654**
Changes in equity recognised in profit or loss	1,204	- 141
As of 31 December	**44,030**	**55,980**

In July 2018 the Group acquired another 5.0 % shares in the EDAG Group and increased its total share-holding from 65.7 % to 70.7 %. Due to this additional acquisition of shares in the EDAG Group non-controlling interests declined. With regard to the changes in the scope of consolidation in prior year, these were the effects of the full consolidation of the EDAG Group.

The other changes in equity within non-controlling interest in 2018 and 2017 include actuarial gains from the remeasurements of defined benefit plans.

28. Provisions for pensions

The Group has occupational pension systems in the form of defined contribution plans and defined benefit plans.

Defined contribution plans take the form of old-age, disability and survivor’s benefits. The employer contributions to the statutory pension insurance scheme payable in Germany should be treated as defined contribution plans of this type. The payments to defined contribution pension plans in the Group primarily relate to contributions to the statutory pension insurance schemes in Germany. The Group has no further payment obligations once the contributions have been paid. In the reporting period, current contributions of EUR 66,989k (previous year: EUR 45,713k) were paid. Other long-term employee benefits according to IAS 19.153 amount to EUR 1,259k in 2018 (previous year: EUR 929k).

The defined benefit obligations relate to direct pension commitments and indirect pension commitments through VKE Versorgungkasse EDAG-Firmengruppe e.V. (VKE) for companies of the FFT Group and the EDAG Group. As a result of the full consolidation of the EDAG Group since 2 July 2017, the latter are again part of the consolidated financial statements. The direct pension commitments obligate the employer to life-long pension payments. The obligations partly take the form of fixed commitments and partly of commitments, which depend on years of service and salary. Commitments are made for old-age, disability and survivor's benefits.

The exclusive and unalterable purpose of VKE is to manage a special pension fund, which grants voluntary, one-time, repeated or recurring benefits to beneficiaries according to the benefit plan of VKE when they need support, become disabled or incapable to work and in old age. The funding companies (members of VKE) are as follows:

- EDAG Engineering GmbH, Wiesbaden
- EDAG Production Solutions GmbH & Co. KG, Fulda
- EDAG Werkzeug + Karosserie GmbH, Fulda
- FFT Produktionssysteme GmbH & Co. KG, Fulda

Beneficiaries can be employees and/or former employees of the funding companies as well as their close relatives (spouses and children) and/or surviving dependants. Individuals who find or found themselves in a comparable situation to that of employees of the funding companies are also classified as members of the funding companies. For employees recruited after 1 June 2006, there are no pension commitments.

Employees receive old-age, disability and survivor's benefits in the form of a lump sum payment in accordance with the provisions of the applicable pension plan. The benefits are financed through an external fund, whereby the fund assets are reinvested in the funding companies in the form of loans.

In addition, there are to a lesser extent defined benefit obligations at Deilmann-Haniel Mining Systems GmbH, Dortmund. Beneficiaries are employees which are not member of the miner's pension insurance not miners and salaried employees who joined the company until 30 June 1995.

In Germany, the provisions of the German Company Pensions Act apply to the pension commitments. Due to the legally prescribed pension adjustment, the pension obligations are subject to inflation risk. Furthermore, there is a risk that the actual payment obligations differ from the obligations expected at the time of the commitment, which is caused by changes in lifetime, disablement probabilities, and mortality rates.

In Germany, the provisions of the German Company Pensions Act apply to the pension commitments. Due to the legally prescribed pension adjustment, the pension obligations are subject to inflation risk. Furthermore, there is a risk that the actual payment obligations differ from the obligations expected at the time of the commitment, which is caused by changes in lifetime, disablement probabilities, and mortality rates.

In Switzerland, the Group is associated to the AXA foundation for occupational benefits. The collective foundation jointly invests the capital of all members. The collective foundation can change its funding system at any time. In the event of underfunding, provided that other measures do not lead to the desired results, the collective foundation can collect restructuring contributions from the employer and the employees.

In Italy, it concerns termination benefits (Trattamento di Fine Rapporto [TFR]). Every employee is entitled to benefits. For every year of service, provisions for severance payments have to be recognised based on the total annual remuneration divided by 13.5. Hence the employer pays a part (0.5 % of the salary) during the year to the Italian social institution or to an external pensions fund. This amount is subtracted from the provisions for severance payments. On 31 December of each year the accumulated provision of the previous year is revalued by a legally required index (1.5 % plus 75 % increase of the consumer price index for families of workers and employees based on the last 12 month).

In India, according to the Compensation Act from 1972 ("gratuity act"), post-employment benefits are paid to employees provided that they have served at least 4.5 years. The payment is based on the monthly base salary divided by 26 days multiplied by 15 days for each completed year, with six completed months being considered as one year.

In South Korea, employees who have been with the company for at least one year have a settlement claim. For each successive year of service, 30 days of average pay on termination of employment are paid.

In Mexico, workers also have a settlement claim. There is a payment of 12 days per year of service. In addition, in the event of unjustified termination at retirement age, compensation for the years of service paid must be paid. The compensation is 3 monthly salaries plus 20 days per year of service.

In addition, in Indonesia there are other post-employment benefit plans in accordance with Indonesian law who applies to employed Indonesian nationals. The obligation is to pay a severance at completion of the employment contract. The benefit amount for each individual employee varies according to length of service and other factors such as age and position.

The pension obligations and the obligations from other postretirement benefit plans are determined on the basis of actuarial reports, which are requested annually. The benefit amount is determined on the basis of the years of service and the estimated future salary and pension trends.

The provisions for pensions recognised in the statement of financial position is as follows:

in EUR '000	**2018**	**2017**
Present value of funded obligations	47,715	48,328
Fair value of plan assets	- 27,909	- 29,343
Deficit of funded plans	**19,806**	**18,985**
Present value of unfunded obligations	25,963	23,841
Total deficit of defined benefit pension plans	**45,769**	**42,826**
Provisions for pensions as of 31 December	**45,769**	**42,826**

The provisions for pensions changed as follows:

in EUR '000	**2018**	**2017**
Provisions for pensions as of 1 January	42,826	15,025
Changes in the scope of consolidation	0	26,502
Current service cost	3,351	1,006
Past service cost	-582	0
Net interest cost (+) / income (-)	748	47
Remeasurements	-896	525
from changes in demographic assumptions	698	602
from changes in financial assumptions	-1,504	-115
from experience gains (-) / losses (+)	-90	38
Currency translation differences	-223	-227
Employer contributions	-208	-108
Contributions by plan participants	0	482
Benefit payments	751	-427
thereof from settlements	1,486	0
Administration cost	2	1
Provisions for pensions as of 31 December	**45,769**	**42,826**

The present value of the defined benefit obligation developed as follows:

in EUR '000	**2018**	**2017**
Present value of the defined benefit obligation as of 1 January	72,169	19,333
Changes in the scope of consolidation	0	52,052
Current service cost	3,351	1,006
Past service cost	-582	0
Interest cost	1,257	327
Remeasurements of defined benefit plans		
from changes in demographic assumptions	698	602
from changes in financial assumptions	-1,464	-288
from experience gains (-) / losses (+)	-90	38
Currency translation differences	-124	-341
Contributions by plan participants	116	547
Benefit payments	-1,654	-1,108
thereof from settlements	0	0
Administration cost	1	1
Present value of the defined benefit obligation as of 31 December	**73,678**	**72,169**

The fair value of plan assets developed as follows:

in EUR '000	2018	2017
Fair value of plan assets as of 1 January	29,343	4,308
Changes in the scope of consolidation	0	25,550
Interest income	508	280
Return on (-) / loss from (-) plan assets excluding amounts included in interest income	40	-173
Currency translation differences	99	-114
Employer contributions	208	108
Contributions by plan participants	116	65
Benefit payments	-2,405	-681
thereof payments from settlements	-1,486	0
Fair value of plan assets as of 31 December	**27,909**	**29,343**

The asset allocation of the fair value of the plan assets is as follows:

in EUR '000	2018	in %	2017	in %
Debt instruments (Germany)	24,891	89%	25,093	86%
thereof without a quoted market price in an active market	0		0	
thereof investments in employer company or related parties	24,891		25,093	
Asset values of reinsurance cover pension trust (Germany)	432	2%	1,767	6%
thereof without a quoted market price in an active market	432		1,767	
Collective foundation (Switzerland)	2,586	9%	2,483	8%
thereof without a quoted market price in an active market	2,586		2,483	
Plan assets as of 31 December	**27,909**	**100%**	**29,343**	**100%**

Neither as of 31 December 2018 nor as of 31 December 2017, asset ceiling regulations had an effect regarding plan assets to be recorded.

The calculation of the present value of the defined benefit obligation is based on the following actuarial assumptions:

	2018	2017
Average discount rate		
Germany	2.03%	1.86%
India	7.57%	7.50%
Indonesia	8.10%	6.75%
Italy	1.57%	1.45%
Mexico	9.00%	7.80%
Switzerland	1.10%	0.80%
South Korea	-	2.85%
Biometric accounting bases		
Germany	2018 G mortality tables	2005 G mortality tables
India	IALM 2006 - 08	IALM 2006 - 08
Indonesia	TMI 3 (2011)	TMI 3 (2011)
Italy	RG 48	RG 48
Mexico	EMSSA 2009	AMIS 2000
Switzerland	BVG 2015 GT	BVG 2015 GT
South Korea	-	Insurance Development Agency

The following sensitivity analyses present the impact on the present value of the defined benefit obligation of an increase or decrease in the actuarial assumptions:

in EUR'000		2018	in %	2017	in %
Average discount rate	+ 0,50 %	66,416	-9.86	68,101	-5.64
	- 0,50 %	74,354	0.92	76,364	5.81
Average life expectancy	+ 1 year	70,475	-4.35	72,361	0.27
	- 1 year	69,848	-5.20	71,723	-0.62

The above sensitivity analyses were calculated in analogy to the defined benefit obligation by changing one assumption while holding all other assumptions and the valuation method constant. If several assumptions change at the same time, the total effect does not have to be the same as the sum of the individual effects. In addition, the effects of the individual changes in assumptions are not linear. The assumptions for salary and pension increases do not have a material impact on the present value of the defined benefit obligation. Hence sensitivities for these assumptions are not disclosed.

For the financial year 2019, the Group expects contributions to defined benefit pension plans amounting to EUR 1,987k (previous year: EUR 2,324k) in total.

The weighted average duration of the defined benefit obligation of ATON’s defined benefit plans is 13 years as of 31 December 2018 (previous year: 15 years).

29. Provisions for income taxes and other provisions

Provisions for income taxes and other provisions developed as follows:

in EUR '000	Income taxes	Personnel	Warran-ties	Rework	Onerous contracts	Litigation risks	Other	Total other provi-sions
As of 31 December 2017	**7,822**	**8,479**	**2,768**	**530**	**12,050**	**928**	**4,672**	**29,427**
Restatement IFRS 15	-	-	-	491	2,444	-	1,805	**4,740**
As of 1 January 2018	**7,822**	**8,479**	**2,768**	**1,021**	**14,494**	**928**	**6,477**	**34,167**
thereof: current	**7,447**	4,617	1,983	1,021	14,494	928	4,033	**27,076**
Changes in the scope of consolidation	**- 2**	- 5	-	-	-	- 65	- 309	**- 379**
Currency translation differences	**- 23**	- 148	10	- 4	59	- 34	- 45	**- 162**
Additions	**1,884**	5,242	1,463	645	3,684	407	3,522	**14,963**
Consumption	**- 3,979**	- 3,345	-	- 230	- 2,422	- 72	- 160	**- 6,229**
Reversal	**- 70**	- 637	- 1,536	- 264	- 4,282	- 3	- 167	**- 6,889**
Interest effect	**-**	22	-	-	-	-	1	**23**
Other changes	**-**	-	11	1,583	2	-	- 1,552	**44**
As of 31 December 2018	**5,632**	**9,608**	**2,716**	**2,751**	**11,535**	**1,161**	**7,767**	**35,538**
thereof: current	**5,254**	5,417	1,988	2,751	11,534	1,161	5,696	**28,547**

in EUR '000	Income taxes	Personnel	Warran-ties	Rework	Onerous contracts	Litigation risks	Other	Total other provi-sions
As of 1 January 2017	**14,781**	**4,828**	**3,359**	**1,136**	**12,410**	**24**	**1,260**	**23,017**
thereof: current	**14,781**	2,264	2,633	1,136	12,410	24	714	**19,181**
Changes in the scope of consolidation	**2,575**	6,323	161	-	1,053	606	3,998	**12,141**
Currency translation differences	**- 72**	- 472	- 18	-	- 91	99	- 188	**-670**
Additions	**6,100**	4,707	1,601	105	11,177	488	619	**18,697**
Consumption	**- 11,261**	- 5,716	- 159	- 568	- 1,210	- 15	- 443	**-8,111**
Reversal	**- 79**	- 404	- 1,411	- 143	- 11,289	- 222	- 275	**-13,744**
Interest effect	**-**	25	-	-	-	-	- 1	**24**
Reclassification under IFRS 5	**-2,762**	-90	-765	-	-	-52	-298	**-1,205**
Other changes	**- 1,460**	- 722	-	-	-	-	-	**-722**
As of 31 December 2017	**7,822**	**8,479**	**2,768**	**530**	**12,050**	**928**	**4,672**	**29,427**
thereof: current	**7,447**	4,617	1,983	530	12,050	928	2,228	**22,336**

The provisions for income taxes include provisions for current income taxes and provisions for taxes to be paid as a result of tax audits.

Personnel provisions in particular relate to provisions for severance payments EUR 4,296k (previous year: EUR 3,563k) and service anniversaries provisions EUR 2,110k (previous year: EUR 1,841k). Other changes reflect the reclassification to other post retirement obligations as part of the provisions for pensions.

The provisions for warranties are recognised for statutory and contractual warranty obligations as well as goodwill services. The provisions were recognised based on the products sold with the period being selected depending on the product and the industry. The measurement is made on the basis of past experience for repairs and complaints.

The provisions for rework comprise subsequent obligations from sales of machinery.

Provisions for onerous contracts are recognised for expected contract-related losses from construction, sales and lease contracts.

The provisions for litigation risks result from current or future legal action of which the related outcome cannot be predicted with certainty. They are measured on the basis of individual assessments of the most likely result.

The provisions for archiving costs are part of the other provisions amount to EUR 167k in the financial year (previous year: EUR 500k).

30. Financial liabilities

Financial liabilities break down as follows:

in EUR '000	31.12.2018 Total	31.12.2018 Remaining maturities < 1 year	> 1 year < 5 years	> 5 years	31.12.2017 Total	31.12.2017 Remaining maturities < 1 year	> 1 year < 5 years	> 5 years
Bonds	-	-	-	-	200,705	200,705	-	-
thereof non-convertible	-	-	-	-	200,705	200,705	-	-
Liabilities to banks	448,698	244,521	164,677	39,500	133,442	60,212	69,456	3,774
thereof from current accounts	60	60	-	-	40,386	40,386	-	-
thereof from loans	448,638	244,461	164,677	39,500	93,056	19,826	69,456	3,774
Loan liabilities	171,295	171,295	-	-	25,469	25,469	-	-
thereof to third parties	-	-	-	-	1	1	-	-
thereof to shareholders	146,086	146,086	-	-	39	39	-	-
thereof to related parties	24,888	24,888	-	-	25,094	25,094	-	-
thereof to associates	85	85	-	-	78	78	-	-
thereof to investments accounted for using the equity method	236	236	-	-	257	257	-	-
Finance lease liabilities	34,573	16,372	18,201	-	26,558	11,627	14,931	-
Liabilities from derivative financial instruments	2,655	2,655	-	-	427	427	-	-
Liabilities from bills	508	508	-	-	2,421	2,421	-	-
Total	**657,729**	**435,351**	**182,878**	**39,500**	**389,022**	**300,861**	**84,387**	**3,774**

For details of lease liabilities, please refer to note **18. The Group as lessee**. For details regarding liabilities from derivative financial instruments, please refer to note **21. Other financial assets**.

The table below shows the future undiscounted cash flows of financial liabilities as of 31 December 2018 that have an impact on the future liquidity status of the ATON Group:

		Cash flow in 2019			Cash flow in 2020-2022			Cash flow in 2023 and beyond			
in EUR '000	**Carrying amount**	**Fixed interest rate**	**Variable interest rate**	**Repay-ment**	**Fixed interest rate**	**Variable interest rate**	**Repay-ment**	**Fixed interest rate**	**Variable interest rate**	**Repay-ment**	**No fixed repay-ment**
Liabilities to banks	448,698	1,034	315	244,521	1,487	5,196	68,787	4,159	854	135,390	0
Finance lease liabilities	34,573	1,049	18	16,372	575	0	13,922	141	0	4,279	0
Loan liabilities to sharehol-ders, related parties and associates	171,059	2,921	0	171,059	0	0	0	0	0	0	-
Loan liabilities to investments accounted for using the equity method	236	0	0	236	0	0	0	0	0	0	0
Loan liabilities to third parties	0	0	0	0	0	0	0	0	0	0	0
Liabilities from derivative financial instruments	2,655	0	0	2,655	0	0	0	0	0	0	0
Trade payables	205,988	0	0	199,862	0	0	5,929	0	0	197	0
Contract Liabilities	194,291	0	0	129,406	0	0	64,885	0	0	0	0
Other liabilities (financial instruments)	6,558	0	0	3,476	0	0	3,057	0	0	0	25
Total	**1,064,058**	**5,004**	**333**	**767,587**	**2,062**	**5,196**	**156,580**	**4,300**	**854**	**139,866**	**25**

The following table shows the figures as of 31 December 2017, also disclosing the future undiscounted cash flows of the financial liabilities:

		Cash flow in 2018			Cash flow in 2019-2021			Cash flow in 2022 and beyond			
in EUR'000	**Carrying amount**	**Fixed interest rate**	**Variable interest rate**	**Repay-ment**	**Fixed interest rate**	**Variable interest rate**	**Repay-ment**	**Fixed interest rate**	**Variable interest rate**	**Repay-ment**	**No fixed repay-ment**
Bonds	200,705	7,422	0	200,705	0	0	0	0	0	0	0
Liabilities to banks	133,442	1,405	10	60,212	535	2,933	60,843	1,238	0	6,587	5,800
Finance lease liabilities	26,558	758	0	11,627	470	0	11,099	74	0	3,832	0
Loan liabilities to sharehold-ers, related parties and associates	25,211	3,732	0	0	0	0	0	0	0	0	25,211
Loan liabilities to investments accounted for using the equity method	257	0	0	257	0	0	0	0	0	0	0
Loan liabilities to third parties	1	0	0	0	0	0	0	0	0	0	1
Liabilities from derivative financial instruments	427	0	0	427	0	0	0	0	0	0	0
Trade payables [1)]	154,597	0	0	150,863	0	0	3,734	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0
Other liabilities (financial instruments)	6,528	0	0	6,528	0	0	0	0	0	0	0
Total	**547,726**	**13,317**	**10**	**430,619**	**1,005**	**2,933**	**75,676**	**1,312**	**0**	**10,419**	**31,012**

1) Excludes liabilities from construction contracts

31. Trade and other payables

in EUR '000	31.12.2018 Total	Remaining maturities < 1 year	> 1 year < 5 years	> 5 years	31.12.2017 Total	Remaining maturities < 1 year	> 1 year < 5 years	> 5 years
Trade payables								
to third parties	200,056	200,056	-	-	150,834	150,808	26	-
to affiliated companies	3	3	-	-	15	15	-	-
to associates	5,929	-	5,929	-	3,748	40	3,708	-
from construction contracts	-	-	-	-	177,296	177,296	-	-
	205,988	**200,059**	**5,929**	**-**	**331,893**	**328,159**	**3,734**	**-**
Other liabilities								
Other liabilities (financial instruments)								
to affiliated companies	61	36	25	-	63	34	29	-
to related parties	-	-	-	-	209	209	-	-
from company purchase agree-ments	2,226	996	1,230	-	2,987	744	2,243	-
from other liabilities (financial instruments)	4,271	4,271	-	-	6,528	6,528	-	-
	6,558	**5,303**	**1,255**	**-**	**9,787**	**7,515**	**2,272**	**-**
Other liabilities (no financial instruments)								
payments received on account of orders	9,784	8,000	1,784	-	52,686	50,502	2,184	-
to employees	86,046	86,046	-	-	74,149	74,149	-	-
from social security contributions	3,882	3,882	-	-	4,007	4,007	-	-
from value added tax and other taxes	36,018	36,018	-	-	57,060	57,060	-	-
from deferred income	1,427	1,346	81	-	6,279	5,151	1,117	11
from other liabilities (no financial instruments)	651	651	-	-	818	637	181	-
	137,808	**135,943**	**1,865**	**-**	**194,999**	**191,506**	**3,482**	**11**
Total	**350,354**	**341,305**	**9,049**	**-**	**536,679**	**527,180**	**9,488**	**11**

As of 31 December 2017, construction contracts with a liability balance due to customers were composed of the following net amounts:

in EUR '000	2017
Accumulated direct costs	1,736,128
+ accumulated allocated gains	272,048
- accumulated allocated losses	55,643
+ accumulated currency translation differences	939
Accumulated contract revenue	**1,953,472**
- advance payments received	98,690
- amounts invoiced	2,032,256
+ accumulated currency translation differences	178
Carrying value	**- 177,296**

Contract liabilities in the scope of IFRS 15 are presented as a separate balance sheet position as of 31 December 2018.

Other liabilities to employees primarily include liabilities from claims of bonus agreements, current salary payments, untaken leave and overtime credits.

Liabilities from social security contributions relate in particular to contributions to be paid to social security institutions.

Aside from this, other liabilities contain a large number of items that are individually insignificant.

32. Notes to the consolidated statement of cash flows

The statement of cash flows shows how the cash and cash equivalents of the ATON Group changed in the course of the reporting period as a result of cash inflows and cash outflows. The impact of changes in the scope of consolidation is disclosed separately only in the cash flow from investing activities. All other changes are disclosed on a net basis in the individual line items of the cash flow from operating activities and from financing activities.

The cash and cash equivalents reported in the consolidated statement of cash flows comprise cash, cheques and bank balances.

Cash flow from operating activities

Income before interest, dividends and income taxes includes earnings before income taxes (EUR 203,062k; previous year: EUR 143,715k) adjusted by the net amount of interest expense, interest income and dividend income (EUR 18,608k; previous year: EUR 13,062k). In the reporting period, the cash flow from operating activities amounts to EUR 225,665k (previous period: cash outflow of EUR 89,556k) and thus increased by EUR 136,109k compared to previous year. The gross cash flow amounting to EUR 188,045k is EUR 27,585k above previous year. Furthermore, the change in other assets and liabilities with a decrease of EUR 82,778k in the reporting period had a positive impact on the development of the cash flow from operating activities (previous year: increase by EUR 34,142k).

Cash flow from investing activities

The cash inflow from investing activities amounts to EUR 87,930k (previous year: EUR 6,127k). The increased net cash inflow is mainly driven by the net proceeds from the disposal / acquisitions of consolidated subsidiaries amounting to EUR 212,495k (previous year: EUR 131,140k). The investments in financial assets and associates amount to EUR 7,155k in the reporting period and are therefore EUR 49,582k below previous year's level. On the contrary, the net investments in intangible assets and property, plant and equipment are at EUR 117,410k and thus EUR 49,134k above previous year.

Cash flow from financing activities

In the reporting period, the cash inflow from financing activities amounts to EUR 61,253k (previous year: cash outflow of EUR 108,365k). The improvement in the cash flow from financing activities can mainly be traced to the net proceeds from bank loans and finance leases, which increased by EUR 98,320k. Additionally, payments to shareholders went down by EUR 87,166k, since in 2018 there are only payments to non-controlling interest amounting to EUR 6,467k. Payments for the acquisition of non-controlling interest in the amount of EUR 20,152k (previous year: EUR 4,284k) have the opposite effect.

Reconciliation of changes financial liabilities to consolidated statement of cash flows

The following table shows the changes of financial liabilities which are presented within the cash flow from financing activities during financial year 2018:

in EUR '000	Balance as of 1 January 2018	Cash flows	non-cash changes				Balance as of 31.12.2018
			Acquisitions (non-cash)	Currency translation differences	Changes in fair value	Reclassifications / restatements / additions and disposals of leases	
Current liabilities to banks, from bonds and other current financial liabilities	289,233	- 380,190	146,087	510	10,503	352,836	**418,979**
Non-current liabilities to banks, from bonds and other non-current financial liabilities	73,230	485,966	-	- 2,216	-	-352,803	**204,177**
Current finance lease liabilities	11,628	- 17,193	21,220	- 701	-	1,418	**16,372**
Non-current finance lease liabilities	14,931	- 711	6,391	- 985	-	-1,425	**18,201**
Total	**389,022**	**87,872**	**173,698**	**- 3,392**	**10,503**	**26**	**657,729**

The following table shows the changes of financial liabilities which are presented within the cash flow from financing activities during financial year 2017:

in EUR '000	Balance as of 1 January 2017	Cash flows	non-cash changes				Balance as of 31.12.2017
			Acquisitions (non-cash)	Currency translation differences	Changes in fair value	Reclassifications / restatements / additions and disposals of leases	
Current liabilities to banks, from bonds and other current financial liabilities	22,791	- 2,836	60,490	- 682	7,623	201,847	289,233
Non-current liabilities to banks, from bonds and other non-current financial liabilities	271,614	5,271	375	- 3,153	466	-201,343	73,230
Current finance lease liabilities	7,361	- 11,478	18,536	- 502	-	-2,289	11,628
Non-current finance lease liabilities	9,262	- 1,405	5,810	- 682	-	1,946	14,931
Total	**311,028**	**- 10,448**	**85,211**	**- 5,019**	**8,089**	**161**	**389,022**

33. Contingent liabilities and other financial obligations

Contingent liabilities

For the contingent liabilities listed below no provisions were recognised, because at the reporting date it was deemed unlikely that the risk would materialise:

in EUR '000	31.12.2018	of which to affiliated companies	31.12.2017	of which to affiliated companies
Contingent liabilities from the granting of security for third-party liabilities	-	-	268	-
Other contingent liabilities	1,541	-	1,541	-
Contingent liabilities	**1,541**	**-**	**1,809**	**-**

The probability that the disclosed contingent liabilities will arise is very low. The change in contingent liabilities results from the position contingent liabilities from the granting of security for third-party liabilities within the segment AT Aviation.

Other financial obligations

In addition to the provisions, liabilities and contingent liabilities, there are other financial obligations, which break down as follows:

in EUR '000	31.12.2018	31.12.2017
Obligations from non-cancellable operating leases	205,737	199,281
Purchase commitments and other purchase obligations	83,862	97,577
Miscellaneous other obligations	2,241	2,975
Other financial obligations	**291,840**	**299,833**

For fix-term contracts the expenses during the entire term of the contract are taken into account, whereas for permanent contracts only the expenses of the following 12 months are taken into the valuation.

The change in obligations from non-cancellable operating leases results in particular from the increase in the segment AT Aviation. The decline in obligations in the AT Med Tech segment has an opposite effect.

The decrease in purchase commitments and other purchase obligations mainly results from the segment AT Mining.

The decrease in miscellaneous other obligations can be traced to the segments AT Aviation, AT Med Tech and AT Engineering.

34. Financial instrument disclosures

Carrying amount, valuation and fair values of financial instruments by measurement categories

Financial instruments are initially measured at fair value. Financial instruments not measured at fair value primarily include cash equivalents, trade receivables, contract assets within the scope of IFRS 15, trade payables, contract liabilities in the scope of IFRS 15, and other financial liabilities, overdrafts and long-term loans.

In the case of cash equivalents and overdrafts, the carrying amount approximately corresponds to the fair value because of the short maturities of these financial instruments. For receivables and payables that are subject to normal trade credit terms, the carrying amount is likewise very similar to the fair value. The same applies to contract assets and contract liabilities.

The fair value of the non-current loans are based on current borrowing interest rates with matching maturity and credit standards. The fair value of financial liabilities largely corresponds to their carrying amount, because the agreed interest rate is regularly adjusted to market levels. For fixed-rate items, the carrying amount is likewise very similar to the fair value, which results by discounting with a term-adequate interest rate, because the interest rate principally corresponds to the current market rates.

The fair values of assets and liabilities from derivative financial instruments are determined on the basis of market terms and conditions prevailing as of the reporting date. For the determination, recognised valuation models are used. For foreign exchange futures, the fair value is based on the expected discounted future cash flows. Options are measured using valuation models on the basis of market values.

The following table shows the fair values and carrying amounts of the financial assets and financial liabilities included in the respective items of the balance sheet as of 31 December 2018 according to IFRS 9:

in EUR '000	Carrying amount under IFRS 9						Fair Value
	Assets				Liabilities		
	Fair value through profit or loss	Amortized cost	Fair value through other comprehen-sive income	Fair Value through OCI Option	Fair value through profit or loss	Amortized cost	
Cash and cash equivalents		559,309					559,309
Financial assets at amortized cost							
Loans		46,652					46,652
Trade receivables		363,300					363,300
Other receivables (financial instruments)		15,367					15,367
Financial assets at fair value through profit and loss							
Securities	25,268						25,268
Futures	525						525
Non-consolidated investments in affiliated companies / Other investments	6,727						6,727
Financial liabilities at amortized cost							
Trade payables						205,988	205,988
Non-convertible bonds						-	-
Liabilities to banks						448,698	448,698
Other interest-bearing liabilities						171,295	171,295
Other liabilities (financial instruments)						6,558	6,558
Finance lease liabilities						34,573	34,573
Liabilities from bills						508	508
Financial liabilities at fair value through profit and loss							
Foreign exchange futures					250		250
Currency options					2,405		2,405

The following table shows the fair values and carrying amounts of the financial assets and financial liabilities included in the respective items of the statement of financial position as of 31 December 2017 according to IAS 39. Thereby, a distinction is made between the following financial assets and financial liabilities, aggregated into measurement categories:

[LaR] Loans and receivables

[HtM] Held-to-maturity investments

[FAHfT] Financial assets held for trading

[AfS] Available-for-sale financial assets

[FLAC] Financial liabilities measured at amortised cost

[FLHfT] Financial liabilities held for trading

in EUR '000	Measurement category under IAS 39	Carrying amount as of 31.12.2017	Recognition under IAS 39 Amortised cost	Cost	Fair Value	Recognition under IAS 17	Fair Value 31.12.2017
Assets							
Cash and cash equivalents	LaR	187,371	187,371				187,371
Trade receivables	LaR	769,539	769,539				769,539
Other receivables and loans							
Loans	LaR	49,043	49,043				49,043
Other Receivables (Financial instruments as defined in IAS 32)	LaR	4,669	4,669				4,669
Other non-derivative financial assets							
Financial assets held for trading	FAHfT	82,869			82,869		82,869
Held-to-maturity investments	HtM	0	0				0
Available-for-sale financial assets	AfS	16,632			16,632		16,632
Other Investments	AfS	3,639		3,639			3,639
Derivative financial assets							
Foreign exchange futures	FAHfT	393			393		393
Liabilities							
Trade payables[1)]	FLAC	154,597	154,597				154,597
Non-convertible bonds	FLAC	200,705	200,705				200,705
Liabilities to banks	FLAC	133,442	133,442				133,442
Other interest-bearing liabilities	FLAC	25,469	25,469				25,469
Other liabilities (Financial instruments as defined in IAS 39)	FLAC	62,473	62,473				62,473
Finance lease liabilities	n/a	26,558				26,558	26,558
Derivative financial liabilities							
Foreign exchange futures	FLHfT	110			110		110
Currency options	FLHfT	317			317		317
Of which aggregated into IAS 39 measurement categories							
Loans and receivables (LaR)	LaR	1,010,622	1,010,622				1,010,622
Held-to-maturity investments (HtM)	HtM	0	0				0
Available-for-sale financial assets (AfS)	AfS	20,271		3,639	16,632		20,271
Financial assets held for trading (FAHfT)	FAHfT	83,262			83,262		83,262
Financial liabilities measured at amortised cost (FLAC)	FLAC	576,686	576,686				576,686
Financial liabilities held for trading (FLHfT)	FLHfT	427			427		427

[1)] Excludes liabilities from construction contracts

If circumstances occur that require a different classification, the reclassification is performed on a quarterly basis.

The following table shows the gross and net amounts of the other derivative financial assets and other derivative financial liabilities as of 31 December 2018:

in EUR '000	Gross amounts reported in the balance sheet	Gross amounts offset in the balance sheet	Net amounts reported in the balance sheet	Amounts not offset in the balance sheet	Total net amount
Other financial assets					
Derivative financial assets	525		525	- 525	
Other financial liabilities					
Derivative financial liabilities	2,655		2,655	- 525	2,130

The following table shows the gross and net amounts of the other financial assets and other financial liabilities as of 31 December 2017:

in EUR '000	Gross amounts reported in the balance sheet	Gross amounts offset in the balance sheet	Net amounts reported in the balance sheet	Amounts not offset in the balance sheet	Total net amount
Other financial assets					
Derivative financial assets	393		393	- 393	
Other financial liabilities					
Derivative financial liabilities	427		427	- 393	34

Determination of the fair value of financial instruments

In the tables below the fair values of financial instruments are allocated to the relevant levels in accordance with IFRS 7. Thereby, the fair value measurement of a financial instrument is allocated in its entirety to the level for which inputs are material to determine its fair value. In level 1, fair values are mainly determined by using quoted prices in active markets for identical financial assets or liabilities. The market is considered active, if quoted prices are easily available and at regular intervals at an exchange, from a trader, broker, industry association, price calculation service or a supervisory authority and the prices reflect current recurring market transactions conducted at arm's length principle. The basis to determine fair values of level 2 are mainly observable quoted prices for similar financial assets or liabilities. Fair value is determined on the basis of the results of a valuation method that uses market data to the largest possible extent, avoiding company-specific data as far as possible. Fair value measurements of level 3 are mainly based on unobservable market data. In 2018 and 2017, the ATON Group determined fair values of financial instruments based on level 1 and level 2. The fair value measurement of level 3 was not used in 2018 nor 2017.

The table below shows the classification of the assets and liabilities measured at fair value as of 31 December 2018:

in EUR '000	Level 1	Level 2	Level 3	Total
Assets				
Non-consolidated investments in affiliated companies		2,597		2,597
Other investments	4,130			4,130
Securities measured at fair value through profit and loss (FVTPL)	25,268			25,268
Foreign exchange futures		525		525
Currency options		-		-
Liabilities				
Foreign exchange futures		250		250
Currency options		2,405		2,405

In the reporting period 2018 (as in the previous reporting period) there were no transfers between level 1 and level 2 of the fair value hierarchy for assets and liabilities that are measured at fair value on a recurring basis.

The table below shows the classification of the assets and liabilities measured at fair value as of 31 December 2017:

in EUR '000	Level 1	Level 2	Level 3	Total
Assets				
Financial assets held for trading	82,869			82,869
Securities available for sale	16,632			16,632
Foreign exchange futures		393		393
Liabilities				
Foreign exchange futures		110		110
Currency options		317		317

The instruments included in level 1 contain financial assets held for trading and securities available for sale.

The foreign exchange futures and currency options in level 2 relate to derivative financial instruments, for which hedge accounting is not applied.

Net gains or losses by measurement category

The Group recognises interest on financial instruments and the other components of net gains or losses in the financial result. Until 31 December 2017 this did not include allowances for trade receivables and other receivables allocated the valuation category "LaR", which were recognized as other operating expenses or other operating income. Likewise, currency translation differences of the LaR and FLAC measurement categories are assigned to other expenses or other income. Likewise, currency translation differences in the measurement categories "LaR" and "FLAC" were allocated to other expenses or income. With the first-time application of IFRS 9 as of 1 January 2018, all expenses and income from expected credit losses are reported separately in the income statement. A presentation as other operating operating income / other operating expenses is not allowed under IFRS 9.

Net gains or losses on financial assets and liabilities at fair value through profit or loss include changes in fair value, interest expenses or income from these financial instruments and income from equity investments, as well as realised gains from the disposal of these investments. The interest result from financial liabilities measured at amortised costs mainly includes interest expenses from financial liabilities. It also includes interest expenses and interest income from the compounding and discounting of trade payables.

The gains or losses by measurement category according to IFRS 9 (from 1 January 2018) and IAS 39 (until 31 December 2017) are as follows:

	From interest	**From subsequent measurement**			**From**	**Net gain or loss**	
in EUR '000	**and dividends**	**Fair value**	**Currency translation**	**Allowances**	**disposal**	**2018**	**2017**
Financial Assets measured at amortised costs	705	-	1,284	3,067	-	5,056	-
Financial Assets at Fair Value through profit and loss	- 2,926	14,721	- 842	3	- 462	10,494	-
Financial Liabilities measured at amortised costs	16,300	-	871	-	-	17,171	-
Financial Liabilities at Fair Value through profit and loss	109	588	452	113	-	1,262	-
Financial Assets at Fair Value through OCI	-	-	-	-	-	-	-
Financial Liabilities at Fair Value through OCI	-	-	-	-	-	-	-
Loans and receivables (LaR)	-	-	-	-	-	-	-9,603
Held-to-maturity investments (HtM)	-	-	-	-	-	-	1
Available-for-sale financial assets (AfS)	-	-	-	-	-	-	-534
Financial instruments held for trading (FAHfT und FLHfT)	-	-	-	-	-	-	13,022
Financial liabilities measured at amortised cost (FLAC)	-	-	-	-	-	-	-17,958
Net gain / loss	**14,188**	**15,309**	**1,765**	**3,183**	**-462**	**33,983**	**-15,072**

Net interest income/expense and allowances

The total interest income and expense recognised in the financial result for financial assets and financial liabilities not classified as at fair value through profit or loss is as follows:

in EUR '000	2018	2017
Interest income	4,310	4,915
Interest expense	21,318	19,197
Net interest expense	**- 17,008**	**- 14,282**

The total interest income or expense on financial assets and liabilities measured at amortised cost in accordance with IFRS 9 (as of 1 January 2018) as well as per measurement category in accordance with IAS 39 (until December 31, 2017) are as follows:

in EUR '000	2018	2017
Financial Assets measured at amortised costs	708	0
Financial Liabilities measured at amortised costs	16,300	0
Loans and receivables (LaR)	0	4,825
Financial liabilities measured at amortised cost (FLAC)	0	1
Held-to-maturity investments (HtM)	0	89
Available-for-sale financial assets (AfS)	0	-19,197
Net interest income/expense	**17,008**	**-14,282**

The impairment losses recognised until 31 December 2017 (in accordance with IAS 39) on "Loans and receivables (LaR)" were as follows:

in EUR '000	2017
Bad debt expense	1,173
Expenses from additions to specific allowances	3,615
Income from release of specific allowances	-394
Income from receivables written off	-9
Income (reversals of impairment losses) from loans	0
Loans and receivables (LaR)	**4,385**

35. Objectives and methods of financial risk management

Risk management principles

The main financial instruments used by the Group – except derivative financial instruments – comprise bank loans and overdrafts, finance leases and trade payables. The main purpose of these financial instruments is to finance the Group's operating activities. Besides, the Group has different financial assets, such as securities, trade receivables, cash and short-term deposits, which result directly from its operating activities.

With regard to its assets, liabilities and planned transactions, the Group is subject to various market risks, in particular risks from changes in exchange rates and interest rates, as well as liquidity and credit risks. The aim of financial risk management is to limit these market risks specifically by continuously taking operational and financial measures. For this purpose selected derivative and non-derivative hedging instruments are used. In general, risks are hedged only if they may have an impact on the Group's cash flows. In particular, foreign exchange futures and currency options are used as derivative financial instruments to hedge against foreign currency risks arising from the Group companies' operating activities.

Financial policy is defined by the Group's management board on an annual basis. The implementation of financial policy and ongoing risk management are the responsibility of the subgroups and single entities. To monitor financial policy, the Group's management board is regularly informed in quarterly meetings respectively in the event of material changes about the current risk exposure in terms of the extent and amount. In addition, certain transactions exceeding the nature and extent of normal business transactions are subject to prior approval by the Group's management board.

Risks from exchange rate fluctuations are limited by locally procuring most materials needed in the manufacturing and assembly processes in the respective countries.

Credit risk

As a result of their operating activities and certain financing activities, the Group companies of ATON are exposed to credit risk. Credit risk exists where a business partner involved in a transaction with non-derivative or derivative financial instruments cannot meet its obligations and this causes a loss of assets. As part of their operations, the Group companies enter into transactions only with third parties rated as creditworthy. Credit checks are performed for new customers. In the case of existing customer relationships, the customer's payment behaviour is analysed on a regular basis. In addition, an analysis and classification of the borrowers into the Group's internal rating takes place at each reporting date:

	ATON	S&P
Credit risk rating grades	**Description**	**Description**
A	Very good credit rating (investment grade)	AAA-BBB
B	Good to satisfactory credit rating (sub-investment grade)	BBB-BB
C	Credit rating below average	below BB

The following overview presents the gross book values of loans, trade receivables and other receivables per defined credit risk rating class:

Credit risk rating grades	Bucket 1	Bucket 2	Bucket 3	Total
A	61,121	360,332	10,544	431,997
B	0	0	0	0
C	0	1,796	9	1,805

In addition, orders and receivables are secured with letters of credit from major banks amounting to EUR 1,536k as of 31 December 2018 (previous year: EUR 1,283). Most of the Group companies have business relationships with large-scale customers (especially international OEMs). The resulting risk is considered low, because these customers have high degrees of solvency and in addition there are no material dependencies. The end customer business with private individuals is of minor importance to the Group.

In the operating business, receivables are continuously monitored on a divisional, i.e. decentralised, basis, so that the Group is not exposed to any material credit risk. The trade and other receivables in the amount of EUR 424,606k (previous year: EUR 810,122k), contract assets in the amount of EUR 289,695k (previous year: EUR 0k) as well as other financial assets in the amount of EUR 79,171k (previous year: EUR 152,577k) reported in assets represent the maximum credit risk.

The maturity structure, the default rate on trade receivables and on active contractual assets in accordance with IFRS 15 is shown below per segment and derives from the gross book values to the net book value:

Valuation adjustments for trade receivables – AT Engineering

Overdue in days	not overdue	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	0.02%	0.12%	0.21%	0.57%	1.30%	0.79%	47.40%	
Gross book value net of payments received on account in kEUR	160,630	37,102	8,480	5,636	3,308	3,025	2,924	**221,105**
Expected credit loss over lifetime	-35	-44	-18	-32	-43	-24	-1,386	**-1,582**
Net book value after valuation adjustment in kEUR	**160,595**	**37,058**	**8,462**	**5,604**	**3,265**	**3,001**	**1,538**	**219,523**

Valuation adjustments for trade receivables – AT Mining

Overdue in days	not overdue	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Gross book value net of payments received on account in kEUR	86,401	4,677	1,082	57	221	0	21	**92,459**
Expected credit loss over lifetime	0	0	0	0	0	0	0	**0**
Net book value after valuation adjustment in kEUR	**86,401**	**4,677**	**1,082**	**57**	**221**	**0**	**21**	**92,459**

Valuation adjustments for trade receivables – AT Med Tech

Overdue in days	not overdue	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	0.06%	0.20%	0.25%	0.17%	0.32%	0.74%	0.99%	
Gross book value net of payments received on account in kEUR	28,147	6,551	1,223	602	3,087	1,220	203	**41,033**
Expected credit loss over lifetime	-16	-13	-3	-1	-10	-9	-2	**-54**
Net book value after valuation adjustment in kEUR	**28,131**	**6,538**	**1,220**	**601**	**3,077**	**1,211**	**201**	**40,979**

Valuation adjustments for trade receivables – AT Aviation

Overdue in days	not overdue	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	1.47%	4.12%	8.62%	0.00%	14.29%	32.38%	0.00%	
Gross book value net of payments received on account in kEUR	5,582	97	325	0	42	105	0	**6,151**
Expected credit loss over lifetime	-82	-4	-28	0	-6	-34	0	**-154**
Net book value after valuation adjustment in kEUR	**5,500**	**93**	**297**	**0**	**36**	**71**	**0**	**5,997**

Valuation adjustments for contract assets – AT Engineering

Overdue in days	not overdue
Loss rate	0.02%
Gross book value net of payments received on account in kEUR	267,465
Expected credit loss over lifetime	-43
Net book value after valuation adjustment in kEUR	**267,422**

Valuation adjustments for contract assets – AT Mining

Overdue in days	not overdue
Loss rate	0.00%
Gross book value net of payments received on account in kEUR	22,202
Expected credit loss over lifetime	-1
Net book value after valuation adjustment in kEUR	**22,201**

Valuation adjustments for contract assets – AT Med Tech

Overdue in days	not overdue
Loss rate	0.00%
Gross book value net of payments received on account in kEUR	73
Expected credit loss over lifetime	0
Net book value after valuation adjustment in kEUR	**73**

Valuation adjustments for contract assets – AT Aviation

Overdue in days	not overdue
Loss rate	0.00%
Gross book value net of payments received on account in kEUR	0
Expected credit loss over lifetime	0
Net book value after valuation adjustment in kEUR	**0**

Default risk for financial instruments outside of the impairment scope of IFRS 9

In the case of securities, the book value of the securities represents the maximum default risk. Currency forwards that are not included in hedge accounting are in principle economically offset by opposing effects from underlying transactions. Again, the book value as of balance sheet date best reflects the maximum default risk.

Risk of changes in interest rates

Most of the Group's financing is mostly based on external bank financing. The ATON Group is generally exposed to fluctuations in market interest rates. Fluctuations in interest rates primarily concern liabilities to banks. These include among other things current account overdrafts as well as variable-rate loans and are therefore directly affected by changes in interest rates. These changes have an impact on future cash flows. In our opinion, no material risks arise from the fluctuations in market interest rates.

The table below shows the sensitivity of consolidated earnings before income taxes to a change in interest rates that is deemed reasonably possible. All other variables have remained unchanged.

The impact on equity includes the impact on both OCI and earnings after tax:

in EUR '000	Change in interest rate in basis points	Impact on profit after tax	Impact on equity
2018	+ 100	-2,506	- 2,506
	./. 100	2,506	2,506
2017	+ 100	-656	-656
	./. 100	656	656

Foreign currency risk

Foreign currency risks result from investments, financing transactions and operating activities. Significant risks from foreign currencies are hedged, if they affect the Group's cash flows. Foreign currency risks that do not affect the Group's cash flows (i.e. risks resulting from the mere translation of the assets and liabilities of foreign corporate units into the Group's reporting currency) are not hedged.

The foreign currency risks regularly relate to current receivables and liabilities denominated in currencies other than the local currencies of the companies in the ATON Group or those that will arise in the normal course of business. The Group is exposed to material foreign exchange risks mainly because of the development of the USD, CAD and ZAR exchange rate.

As of the reporting date, the Group was not exposed to any material risks from investment transactions denominated in foreign currency.

The Group companies settle most of their operating activities in their respective functional currencies. For this reason, the Group's foreign currency risk from operating activities is considered low. However, some Group companies are exposed to foreign currency risks in connection with planned payments not denominated in their functional currency. In some cases, derivative financial instruments (foreign exchange futures and currency options) are used to minimise the risk of changes in exchange rates. These financial instruments are used to hedge only existing or expected foreign currency risks.

As of 31 December 2018, material receivables and payables only exist in US dollar, Canadian dollar and South African Rand. The non-derivative and derivative financial instruments existing at the end of the reporting period were measured in a hypothetical scenario as part of a sensitivity analysis. The effects of a 10 % increase / decrease in a currency per exchange rate to profit after taxes and equity as of 31 December 2018 and 31 December 2017 are as follows:

in EUR '000	change in %	EUR/USD	EUR/CAD	EUR/ZAR
2018	+ 10	- 7,726	- 6,326	85
	./. 10	9,442	7,732	104
2017	+ 10	714	- 5,231	- 1,354
	./. 10	- 873	6,393	1,654

Relevant risk variables are all non-functional currencies in which the Group enters into financial instruments.

The currency sensitivity analyses are based on the following assumptions: Material non-derivative financial instruments (cash and cash equivalents, receivables, interest-bearing liabilities, finance lease liabilities, non-interest-bearing liabilities) are either denominated directly in the functional currency or, in material circumstances, they are transferred into the functional currency by using derivatives.

Equity instruments held by the Group are non-monetary and therefore not associated with foreign currency risk as defined in IFRS 7.

Liquidity risk

Ensuring permanent solvency is the responsibility of the respective management teams of the subgroups and single entities. The central objective specified for the Group is to continuously ensure that financial requirements are covered by using current account overdrafts, loans and leases. Central monitoring of the liquidity of the individual Group companies is performed with weekly reports to the parent ATON. The information provided is presented to the Group's management board on a weekly basis for risk management purposes. Based on the current and expected business situation, the liquidity risk is considered low. Nevertheless, liquidity continues to be ensured through medium-term and long-term lines of credit. In general, it is ensured that there are sufficient free lines of credit. Appropriate measures are taken on time to ensure the financing of planned investments.

Please refer to note **30. Financial liabilities** for the liquidity analysis.

Covenant Risk

The majority of financing contracts with banks include covenants that are based on predefined financial ratios. Essentially, the covenants are equity ratios and gearing and in some cases interest cover ratios. If one of the agreed limits is exceeded, the lenders have a right of termination. The terms of the loan agreement with Landesbank Hessen-Thüringen Girozentrale from 2017 contain contractual clauses that use key figures to limit both ATON Group's net financial debt and ATON subsidiaries' gross debt. Moreover, the terms and conditions include regulations regarding securing financial liabilities, transactions with owners, change of control and the maximum amount of dividends. As of the balance sheet date, there is a loan liability from this loan agreement in the amount of EUR 225,000k, which is due until 30 September 2019.

In the case of change of control, which is assumed if there is a change of more than 50 % of shareholders, there is a provision for a mandatory unscheduled repayment in the amount of the outstanding loan, without the need for cancellation of the loan. The obligations under the credit clauses are subject to a permanent review, i.a. in relation to the current financial situation of the companies, by means of which risks can be identified at an early stage. In the financial year 2018, the covenant conditions were fully complied with.

Other price risks

As part of the disclosure of market risks, IFRS 7 also requires information on how hypothetical changes in risk variables impact on the prices of financial instruments. Eligible risk variables are exchange prices or indices in particular.

in EUR '000	Change in prices in basis points	Impact on profit after tax	Impact on equity
2018	+ 100	253	253
	./. 100	- 253	- 253
2017	+ 100	995	995
	./. 100	- 995	- 995

There are no material concentration of risks in the ATON Group as of the 2018 reporting date.

Capital management / control

The main objective of the Group's capital management system is to ensure that the Group's ability to repay debt and its financial strength are maintained, combined with the corresponding credit rating and equity ratio.

The Group manages its capital structure and makes adjustments in line with changes in economic conditions.

Capital is primarily managed on the basis of a dynamic debt ratio (I and II), which corresponds to the ratio of first and second degree net financial liabilities to EBITDA. The debt ratio I monitored by the management board should not exceed 4 and the debt ratio II should not be higher than 10.

In the reporting period as in previous year, the dynamic debt ratios I and II are within the specified range:

in EUR '000	2018	2017
EBITDA	330,747	223,556
Liabilities to banks	448,698	133,442
Leasing liabilities	34,573	26,558
Other financial liabilities	3,484	203,890
	486,755	**363,890**
Cash and cash equivalents	559,309	187,371
First-degree net financial assets (-) / net financial liabilities (+)	**- 72,554**	**176,519**
Liabilities to shareholders/related parties	170,974	25,133
Investments in securities that can be liquidated at short notice	25,268	99,501
Second-degree net financial assets (-) / net financial liabilities (+)	**73,152**	**102,151**
Dynamic debt ratio I	**-**	**0.8**
Dynamic debt ratio II	**0.2**	**0.5**

Effect of hedging relationships

The Group hedges currency risks by the use of hedge accounting. Hedge accounting reflects the hedging strategies outlined above for currency risk. Hedging is usually only for longer-term and larger projects in foreign currency.

The effectiveness of the hedging relationship is assessed using the hypothetical derivative method. In doing so, a derivative is modeled for the underlying transaction that corresponds exactly to its payment profile. Changes in the value of this hypothetical derivative are compared with changes in the value of the hedging transaction. For each secured cash flow, a separate hedging transaction is made. Since the payment characteristics of the hypothetical derivative and the hedging derivative are opposite, fluctuations in value exactly balance each other out.

As of the reporting date, the Group has the following hedging instruments:

	Nominal amount	**due**	**due**	**due**	**Average hedging rate**		**Fair Value**	
in EUR '000	**31.12. 2018**	**< 1 year**	**between 1 and 5 years**	**> 5 Jahre**	**31.12. 2018**	**31.12. 2017**	**31.12. 2018**	**31.12. 2017**
Currency forward exchange transactions (within cash flow hedges)	0	0	0	0	0	0	0	0
Currency options (within cash flow hedges)	31,104	31,104	0	0	1.22	0	-2,405	0

The hedging instruments that the Group has designated as hedges have the following effects on the balance sheet as of 31 December 2018:

	Carrying amont of the hedging instruments					
in EUR '000	**debit**	**credit**	**Nominal amount of hedging in-struments**	**Presentation in the follow-ing balance sheet item**	**Change in fair value used as the basis for recognising hedge ineffec-tiveness**	**Average heding rate (USD / EUR)**
Informationen about heding instruments within cash flow hedg-es	0	-2,405	31,104	Financial Lia-bilities	-2,350	1.22

The aforementioned hedging relationships have the following effects on the income statement and other comprehensive income in the financial year 2018:

in EUR '000	Hedging gain or loss of the reporting period that were recognised in other comprehensive income	Hedging gain or loss of the reporting period that were recognised in profit and loss due to ineffectivenes	Income statement position where the ineffectiveness is accounted for	Amount reclassified from the cash flow hedge reserve (OCI) into profit and loss	Income statement position where the reclassified amounts are accounted for
Effects from hedging n the statement of comprehensive income	-8,039	0	-	-5,689	Revenue

No planned transactions were used for hedge accounting, that turned out to be no longer probable during the financial year.

With regard to the impact on the other comprehensive income from the use of hedge accounting in the financial year 2018, we refer to the consolidated statement of comprehensive income, the presentation of the changes in the reserves from cash flow hedges in note **27. Equity** and the further explanations in note **21. Other financial assets**.

36. Segment reporting

The management board is the main decision maker of the Group. Management has determined the operating segments for the purpose of allocating resources and assessing performance. The management board defines the business from a product perspective with the segments AT Engineering, AT Mining, AT Med Tech and AT Aviation.

The services of the segment **AT Engineering** cover in particular the areas of engineering and plant construction for the automotive industry, along with other sectors of the mobility industry, as well as manufacturing of specialised machine and mining.

The segment **AT Mining** offers mining and shaft-sinking services and products worldwide.

The segment **AT Med Tech** provides on the one hand solutions for the healthcare market in the fields of surgery and diagnostics, specialising in X-ray diagnostics and on the other hand products for the pharmaceuticals industry and hospitals.

The segment **AT Aviation** comprises business aviation and charter flights.

The management board assesses the performance of the operating segments based on gross revenue, EBIT and EAT (profit or loss for the period).

Sales between segments are carried out in accordance with standard market practices. The revenue from external parties reported to the management board is measured in a manner consistent with that in the income statement.

The non-operating result contains the result from disposal of consolidated subsidiaries, from disposal of fixed assets, income and expenses from foreign currency translation, income from the reversal of provisions as well as other income and expenses from previous years.

The following table presents information for the Group's segments:

	AT Engineering		AT Mining		AT Med Tech	
in EUR '000	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**
External revenue (net)	1,542,031	1,221,886	639,437	560,897	204,795	292,591
Internal revenue (net)	124	135	38	6,118	-	-
Revenue	**1,542,155**	**1,222,021**	**639,475**	**567,015**	**204,795**	**292,591**
Changes in inventories and own work capitalised	5,016	-3,067	-847	1,525	1,218	-228
Gross revenue	**1,547,171**	**1,218,954**	**638,628**	**568,540**	**206,013**	**292,363**
Non-operating result	5,909	9,101	6,646	-521	158,372	73,758
Impairment losses / reversal of impairment losses on financial assets	1,902	-	655	-	617	-
EBITDA	**125,265**	**68,188**	**78,735**	**65,123**	**186,649**	**108,877**
Depreciation and amortisation	65,443	36,307	32,154	30,710	8,050	11,816
Impairment losses	33	19	3,807	553	3	6
EBIT	**59,789**	**31,862**	**42,774**	**33,860**	**178,596**	**97,055**
Financial result	-10,966	-13,310	-4,311	694	-770	-907
thereof interest income	1,061	663	501	395	99	73
thereof interest expense	-11,330	-10,854	-6,714	-7,112	-869	-979
thereof result from at equity investments	0	-4,283	13,909	6,303	-	-
EBT	**48,823**	**18,552**	**38,463**	**34,554**	**177,826**	**96,148**
Income taxes	19,124	12,566	13,473	13,591	3,834	8,535
EAT	**29,699**	**5,986**	**24,990**	**20,963**	**173,992**	**87,613**
EAT attributable to non-controlling interest	3,138	789	-1,934	-930	-	-
EAT attributable to owners of the parent	**26,561**	**5,197**	**26,924**	**21,893**	**173,992**	**87,613**

	AT Engineering		AT Mining		AT Med Tech	
in EUR '000	**31.12.2018**	**31.12.2017**	**31.12.2018**	**31.12.2017**	**31.12.2018**	**31.12.2017**
Segment assets	987,750	1,043,237	754,919	593,550	172,044	218,494
Segment liabilities	660,802	731,680	318,556	240,842	41,773	52,830

	AT Aviation		Holding/Consolidation		ATON Group	
in EUR '000	**2018**	**2017**	**2018**	**2017**	**2018**	**2017**
External revenue (net)	75,301	70,957	-	54	2,461,564	2,146,385
Internal revenue (net)	22	-	- 146	- 2,252	38	4,001
Revenue	**75,323**	**70,957**	**- 146**	**-2,198**	**2,461,602**	**2,150,386**
Changes in inventories and own work capitalised	-	-	-	-	5,387	-1,770
Gross revenue	**75,323**	**70,957**	**-146**	**-2,198**	**2,466,989**	**2,148,616**
Non-operating result	-126	267	-3,911	-996	166,890	81,609
Impairment losses / reversal of impairment losses on financial assets	269	-	1	-	3,444	-
EBITDA	**-247**	**-3,257**	**-59,655**	**-15,375**	**330,747**	**223,556**
Depreciation and amortisation	262	264	62	228	105,971	79,325
Impairment losses	-	-	66	-	3,909	578
EBIT	**-509**	**-3,521**	**-59,783**	**-15,603**	**220,867**	**143,653**
Financial result	119	-20	-1,877	13,605	-17,805	62
thereof interest income	374	454	2,666	3,085	4,701	4,670
thereof interest expense	-331	-410	-4,399	-687	-23,643	-20,042
thereof result from at equity investments	246	-	-	-	14,155	2,020
EBT	**-390**	**-3,541**	**-61,660**	**-1,998**	**203,062**	**143,715**
Income taxes	67	-172	-1,414	1,593	35,084	36,113
EAT	**-457**	**-3,369**	**-60,246**	**-3,591**	**167,978**	**107,602**
EAT attributable to non-controlling interest	-	-	-	-	1,204	-141
EAT attributable to owners of the parent	**-457**	**-3,369**	**-60,246**	**-3,591**	**166,774**	**107,743**

	AT Aviation		Holding/Consolidation		ATON Group	
in EUR '000	**31.12.2018**	**31.12.2017**	**31.12.2018**	**31.12.2017**	**31.12.2018**	**31.12.2017**
Segment assets	26,862	30,175	611,941	411,728	2,553,516	2,297,184
Segment liabilities	25,657	28,453	327,822	50,680	1,374,610	1,104,485

The EBIT of the segment AT Med Tech was significantly influenced by the disposal of Haema with a deconsolidation gain of EUR 156,494k. In the previous year, the segment's EBIT included the deconsolidation gain of W.O.M. Group in the amount of EUR 73,496k.

Due to the diversification of the ATON Group, there are no significant dependencies from individual customers.

37. Auditor's fees

For the services provided by Deloitte GmbH Wirtschaftsprüfungsgesellschaft the following fees have been recognised as expenses:

in EUR '000	2018	2017
Audits	1,105	1,201
Other attestation services	59	44
Tax consultation services	34	28
Other services	76	301
Total	**1,274**	**1,574**

38. Related party transactions

In addition to the subsidiaries included in the consolidated financial statements, ATON GmbH has direct or indirect relationships with the shareholders, non-consolidated affiliated subsidiaries, associates, joint ventures and other related parties in the course of normal business operations. These relationships are subject to disclosure requirements in accordance with IAS 24. Related parties have control or significant influence over the ATON Group or are a member of the key management of the ATON Group. Furthermore, there are relationships between ATON Group and related entities (non consolidated subsidiaries, entities accounted for using the equity method).

The volume of services provided to related parties by the ATON Group breaks down as follows:

in EUR '000	2018 Revenue, other income and interest	31.12.2018 Receivables outstanding	2017 Revenue, other income and interest	31.12.2017 Receivables outstanding
Investments accounted for using the equity method	25,087	6,426	12,263	10,255
Non-consolidated subsidiaries	2,470	7,742	5,087	9,224
Other related parties	1,508	38,600	14,608	38,096
Shareholders	5	1	1,011	2
Total	**29,070**	**52,769**	**32,969**	**57,577**

Income with non-consolidated subsidiaries results primarily from rendering of services and from interest income.

Income with companies, which are accounted by using the equity method, mainly derives from deliveries of inventories and interests.

Income with other related parties essentially results from rendering of services.

The volume of services received from related parties by the ATON Group breaks down as follows:

in EUR '000	2018 Purchased merchan-dise/services, other operating expenses and interest	31.12.2018 Liabilities outstanding	2017 Purchased merchan-dise/services, other operating expenses and interest	31.12.2017 Liabilities outstanding
Investments accounted for using the equity method	294	6,165	15,734	4,005
Non-consolidated subsidiaries	8	88	8	94
Other related parties	646	24,888	668	25,303
Shareholders	-	146,147	-	102
Total	**948**	**177,288**	**16,410**	**29,504**

Expenses with non-consolidated subsidiaries results mainly from intrests.

Expenses with companies, which are accounted by using the equity method, essentially arise from rendering of services.

Expenses with other related parties mainly result from the purchase of services.

The receivables from related parties and liabilities to related parties primarily include loans and borrowings as well as balances from deliveries and services.

The liabilities to shareholders result from the liability arising from the profit and loss transfer agreement with ATON 2 GmbH.

Transactions with related parties are contractually agreed and conducted at arm's lengths conditions.

Transactions with the management board

The remuneration paid to the management board amounts to EUR 4,334k in the financial year (previous year: EUR 4,050k). Besides, the key management personnel received a variable additional remuneration in the amount of EUR 1,000k. No such additional remuneration or termination benefit were granted in the previous financial year.

There were no advances or loans to members of the management board, nor were there contingent liabilities or pension obligations as of the reporting date.

39. List of shareholdings

Concerning the list of shareholdings, please refer to the appendix, which is an integral part of these notes.

40. Events after the balance sheet date

Effective 1 January 2019, Ziehm Medical LLC, Reno, Nevada / USA, has been dissolved.

ATON TS GmbH, Munich, was merged to ATON GmbH based on the merger agreement signed on 20 February 2019.

NextRay LLC, Wilmington, Delaware / USA was dissolved on 25 February 2019.

Effective 8 Apri 2019, ATON US Inc., Scottsdale, Arizona / USA, and OrthoScan Inc., Scottsdale, Arizona / USA, were contributed to Ziehm Imaging GmbH, Nuremberg.

ATON Group Finance GmbH, Going am Wilden Kaiser / Austria, was merged to ATON Austria Holding GmbH, Going am Wilden Kaiser / Austria based on the merger agreement signed on 3 April 2019.

On 18 June 2018, a share purchase agreement was signed for the sale of FFT GmbH & Co. KGaA, Fulda, and thus the entire FFT Group. Regulatory and antitrust approvals are required as a closing condition. We assume that all required closing conditions will be fulfilled in May 2019. The sale will have a significant positive impact on the net assets, financial position and results of operations of the ATON Group in the year 2019.

41. Responsibility statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of the Group, and the Group management report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the material opportunities and risks associated with the expected development of the Group.

Munich, 29 April 2019

ATON GmbH
Management Board

[original German version signed by:]

Dr. Lutz Helmig Georg Denoke Jörg Fahrenbach

List of shareholdings (direct and indirect) of ATON GmbH

As of 31 December 2018

No.	Company	City	Country	Share in % direct	Share in % indirect	Currency	Equity as per 31 Dec 2018	Net Result 2018
I. Affiliated Companies								
1. Consolidated Companies								
a) Domestic companies								
1.	ATM Holding GmbH	München	Germany	100.0		kEUR	81,800	4,904
2.	ATON - Oldtimer GmbH	Munich	Germany	100.0		kEUR	10,249	- 1,587
3.	ATON TS GmbH	Munich	Germany	100.0		kEUR	5,698	- 200
4.	BBZ Berufsbildungszentrum Fulda GmbH	Fulda	Germany		80.0	kEUR	967	6
5.	BBZ Mitte GmbH	Petersberg	Germany		100.0	kEUR	- 154	407
6.	BFFT aeromotive GmbH	Gaimersheim	Germany		100.0	kEUR	549	176
7.	BFFT Gesellschaft für Fahrzeug-technik mbH	Gaimersheim	Germany		100.0	kEUR	21,049	0
8.	BFFT Holding GmbH	Munich	Germany		100.0	kEUR	4,594	527
9.	DC Aviation GmbH	Stuttgart	Germany	100.0		kEUR	1,205	- 457
10.	Deilmann-Haniel GmbH	Dortmund	Germany		100.0	kEUR	12,145	1,944
11.	Deilmann-Haniel Mining Systems GmbH	Dortmund	Germany	100.0		kEUR	- 22,815	- 1,670
12.	EDAG Engineering GmbH	Wiesbaden	Germany		100.0	kEUR	248,759	0
13.	EDAG Engineering Holding GmbH	Munich	Germany		100.0	kEUR	74,269	11,844
14.	EDAG Production Solutions GmbH & Co. KG	Fulda	Germany		100.0	kEUR	10,000	4,509
15.	EDAG Werkzeug + Karosserie GmbH	Fulda	Germany		100.0	kEUR	19,480	2,454
16.	EKS InTec GmbH	Weingarten	Germany		100.0	kEUR	3,680	274
17.	FFT GmbH & Co. KGaA	Fulda	Germany	100.0		kEUR	19,048	673
18.	FFT Produktionssysteme GmbH & Co. KG	Fulda	Germany		100.0	kEUR	119,513	2,544
19.	Jota GmbH	Fulda	Germany		100.0	kEUR	- 26	17
20.	REFORM Maschinenfabrik Adolf Rabenseifner GmbH & Co. KG	Fulda	Germany	100.0		kEUR	3,106	- 2,108
21.	Rosata Grundstücks-Vermietungsgesellschaft mbH & Co. Objekt Fulda-West KG	Grünwald	Germany		100.0	kEUR	- 1,288	154
22.	Rücker Akademie GmbH	Wiesbaden	Germany		100.0	kEUR	212	0
23.	Scherwo Steuerungstechnik GmbH	Gauting	Germany		65.0	kEUR	358	55
24.	VR Leasing Malakon GmbH & Co. Immobilien KG	Eschborn	Germany		100.0	kEUR	35	213
25.	Ziehm Imaging GmbH	Nuremberg	Germany	100.0		kEUR	72,871	13,747
b) Foreign Companies								
26.	ATON Austria Holding GmbH	Going am Wilden Kaiser	Austria	100.0		kEUR	816,381	- 6,821
27.	ATON FinCo GmbH	Going am Wilden Kaiser	Austria	100.0		kEUR	309	226
28.	ATON Group Finance GmbH	Going am Wilden Kaiser	Austria	100.0		kEUR	3,215	580
29.	ATON US Inc.	Scottsdale	USA	100.0		kUSD	47,263	- 18,803
30.	BFFT Italia S.R.L.	Bozen	Italia		100.0	kEUR	297	87
31.	BFFT of America Inc.	Los Angeles	USA		100.0	kUSD	469	174
32.	Ciratec BH d.o.o.	Tuzla	Bosnia and Herzegovina		100.0	kBAM	211	107
33.	Ciratec bvba	Diepenbeek	Belgium		100.0	kEUR	982	258
34.	CKGP/PW & Associates, Inc.	Troy	USA		100.0	kUSD	3,273	- 417
35.	Deilmann-Haniel Schachtostroj OOO	Berezniki	Russia		100.0	kEUR	33,152	- 945
36.	EDAG do Brasil Ltda.	Sao Bernardo do Campo	Brazil		100.0	kBRL	16,851	312
37.	EDAG Engineering AB	Göteborg	Sweden		100.0	kSEK	2,530	1,253
38.	EDAG Engineering and Design (Shanghai) Co. Ltd.	Shanghai	China		100.0	kCNY	36,346	12,458
39.	EDAG Engineering CZ spol. s.r.o.	Mladà Boleslav	Czech Republic		100.0	kCZK	34,635	1,495

No.	Company	City	Country	Share in % direct	Share in % indirect	Currency	Equity as per 31 Dec 2018	Net Result 2018
b) Foreign Companies								
40.	EDAG Engineering Group AG	Arbon	Switzerland	70.7		kEUR	410,555	- 2,226
41.	EDAG Engineering Ltd.	Markyate	Great Britain		100.0	kGBP	5,285	510
42.	EDAG Engineering Polska Sp.z.o.o.	Warszawa	Poland		100.0	kPLN	6,933	1,811
43.	EDAG Engineering Schweiz GmbH	Arbon	Switzerland		100.0	kCHF	1,234	510
44.	EDAG Engineering Schweiz Sub-Holding AG	Arbon	Switzerland		100.0	kEUR	476,099	31,345
45.	EDAG Holding Sdn. Bhd. Malaysia	Shah Alam	Malaysia		100.0	kMYR	1,714	350
46.	EDAG Hungary Kft.	Györ	Hungary		100.0	kEUR	2,706	443
47.	EDAG Inc.	Troy	USA		100.0	kUSD	8,374	1,072
48.	EDAG Italia S.R.L.	Torino	Italy		100.0	kEUR	638	142
49.	EDAG Japan Co. Ltd.	Yokohama	Japan		100.0	kJPY	67,206	4,379
50.	EDAG Mexico S.A. de C.V.	Puebla	Mexico		100.0	kMXN	36,090	35,254
51.	EDAG Netherlands B.V.	Helmond	Netherlands		100.0	kEUR	428	240
52.	EDAG Production Solutions CZ s.r.o.	Mladà Boleslav	Czech Republic		100.0	kCZK	39,046	27,103
53.	EDAG Production Solutions, Inc.	Troy	USA		100.0	kUSD	9,054	412
54.	EDAG Production Solutions India Priv. Ltd.	Gurgaon	India		100.0	kINR	238,847	51,336
55.	EDAG SERVICIOS Mexico S.A. de C.V.	Puebla	Mexico		100.0	kMXN	140	0
56.	EDAG Technologies India Priv. Ltd.	Gurgaon	India		100.0	kINR	41,468	6,431
57.	Eroc Holdings Pty Limited	Brisbane	Australia		100.0	kCAD	5	0
58.	Eroc Malaysia Sdn. Bhd.	Kuala Lumpur	Malaysia		100.0	kCAD	0	103
59.	FFT Espana Tecnologías de Automoción S.A.U.	Silla (Valencia)	Spain		100.0	kEUR	11,501	1,043
60.	FFT Mexico S.A. de C.V.	Puebla	Mexico		100.0	kMXN	286,222	17,836
61.	FFT Production Systems, Inc.	Greer	USA		100.0	kUSD	1,501	742
62.	FFT Produktionssysteme Polska sp.z.o.o.	Pozna	Poland		100.0	kPLN	172	67
63.	FFT Production Systems S.R.L.	Municipiul Cam-pulung	Romania		100.0	kRON	17,450	- 424
64.	FFT Production Systems (Shang-hai) Co., Ltd.	Shanghai	China		100.0	kCNY	241,056	39,585
65.	FFT Servicios Mexico, S.A. de CV	Puebla	Mexico		100.0	kMXN	6,477	1,451
66.	FFT Technologies, Inc.	Montgomery	USA		100.0	kUSD	285	- 16
67.	Redpath Australia Coal Pty Ltd.	Brisbane	Australia		100.0	kCAD	- 108	- 5
68.	HRM Engineering AB	Göteborg	Sweden		100.0	kSEK	9,756	- 44
69.	J.S. Redpath Corporation	Sparks	USA		100.0	kCAD	22,400	5,967
70.	J.S. Redpath Peru SAC	Lima	Peru		100.0	kCAD	- 25	- 2
71.	Les Entreprises Mineres Redpath Ltee.	North Bay	Canada		100.0	kCAD	79	0
72.	Müller HRM Engineering AB	Göteborg	Sweden		100.0	kSEK	1,288	- 122
73.	OOO Deilmann-Haniel Belschachtostroj	Soligorsk	Belarus		99.9	kCAD	183	164
74.	OOO EDAG Production Solutions RU	Kaluga	Russia		100.0	kRUB	- 1,321	- 536
75.	OrthoScan Inc.	Scottsdale	USA		100.0	kUSD	6,448	1,436
76.	PT Redpath Indonesia	Jakarta	Indonesia		100.0	kCAD	24,061	13,520
77.	Redpath Africa Limited	Ebene	Mauritius		100.0	kCAD	7,525	1,662
78.	Redpath Argentina Construcciones S.A.	Buenos Aires	Argentina		100.0	kCAD	230	95
79.	Redpath (Australia) Holdings Pty Limited	Brisbane	Australia		100.0	kCAD	23,963	- 123
80.	Redpath Australia Pty Limited	Brisbane	Australia		100.0	kCAD	21,092	6,531
81.	Redpath Canada Limited (formerly: J.S. Redpath Limited)	North Bay	Canada		100.0	kCAD	97,773	14,285
82.	Redpath Chilena Construcciones Y Cia. Limitada	Santiago	Chile		100.0	kCAD	- 17,944	- 6,526
83.	Redpath Contract Services Pty Ltd.	Brisbane	Australia		100.0	kCAD	10,417	2,749
84.	Redpath-Deilmann d.o.o Beograd	Belgrad	Republic of Serbia		100.0	kCAD	0	0

No.	Company	City	Country	Share in % direct	Share in % indirect	Currency	Equity as per 31 Dec 2018	Net Result 2018
b) Foreign Companies								
85.	Redpath Global Mobility Services Inc.	North Bay	Canada		100.0	kCAD	- 14	- 110
86.	Redpath Greece Pivate Company	Athens	Greece		100.0	kCAD	430	- 181
87.	Redpath Guatemala Construcciones S.A.	Guatemala	Guatemala		100.0	kCAD	- 81	- 5
88.	Redpath KR LLC	Bishkek	Kirgizstan		100.0	kCAD	0	0
89.	Redpath Mexicana Construcciones SA de CV	Mexico City	Mexico		100.0	kCAD	4	- 1
90.	Redpath Mining (S.A.) (Pty.) Ltd.	Johannesburg	South Africa		74.0	kCAD	- 24,580	- 13,347
91.	RGP Deilmann d.o.o.	Belgrad	Republic of Serbia		100.0	kCAD	0	0
92.	Redpath Mining Inc. (formerly: J.S. Redpath Holdings Inc.)	North Bay	Canada	100.0		kCAD	94,613	15,904
93.	Redpath Mongolia LLC	Ulaanbaatar	Mongolia		100.0	kCAD	2,544	7,097
94.	Redpath Philippines Inc.	Makati	Philippines		100.0	kCAD	0	0
95.	Redpath PNG Limited	Port Moresby	Papua New Guinea		100.0	kCAD	1,206	- 4
96.	Redpath Raiseboring Limited	North Bay	Canada		100.0	kCAD	64,735	212
97.	Redpath Rig Resources JV Limited	Kitwe	Zambia		70.0	kCAD	- 6,697	- 1,951
98.	Redpath Venezolana C.A.	El Callao	Venezuela		100.0	kCAD	0	0
99.	Redpath Zambia Limited	Lusaka	Zambia		74.0	kCAD	12,655	2,450
100.	Rücker Lypsa, S.L.U.	Cornellá de Llobregat	Spain		100.0	kEUR	13,947	2,190
101.	Rücker Vehicle Design (Shanghai) Co., Ltd.	Shanghai	China		100.0	kCNY	2,501	- 27
102.	Triple S Insurance Company Limited	Bridgetown	Barbados		100.0	kCAD	28,354	5,096
103.	UnderAus Group Holdings Pty Limited	Brisbane	Australia		100.0	kCAD	6,774	0
104.	Ziehm Imaging Austria GmbH	Tulln	Austria		100.0	kEUR	83	48
105.	Ziehm Imaging Finnland (OY)	Hinthaara	Finland		100.0	kEUR	214	55
106.	Ziehm Imaging Inc.	Orlando	USA	100.0		kUSD	9,093	5,898
107.	Ziehm Imaging Japan KK	Tokyo	Japan		100.0	kJPY	6,069	1,069
108.	Ziehm Imaging Sarl	Villejust	France		100.0	kEUR	276	90
109.	Ziehm Imaging Singapore Pte. Ltd. (PTE)	Singapore	Singapore		100.0	kSGD	874	270
110.	Ziehm Medical Do Brasil	Sao Paulo	Brazil		100.0	kBRL	- 698	83
111.	Ziehm Medical LLC	Reno Nev.	USA	100.0		kUSD	46,320	- 258
112.	Ziehm Medical (Shanghai) Co. Ltd.	Shanghai	China		100.0	kCNY	13,764	3,462
113.	Ziehm Imaging Srl a Socio Unico (SRL)	Reggio Nell' Emilia	Italy		100.0	kEUR	836	229

2. Non-Consolidated affiliates, which are measured at fair value

a) Domestic Companies

114.	EDAG-Beteiligung GmbH	Fulda	Germany		100.0	kEUR	36	- 1
115.	EDAG EE Treuhand GmbH	Gaimersheim	Germany		100.0	kEUR	22	- 3
116.	EDAG Production Solutions Verwaltungs GmbH	Fulda	Germany		100.0	kEUR	16	- 1
117.	Flexible Fertigungstechnik GmbH	Mücke	Germany		100.0	kEUR	75	5
118.	REFORM Maschinenfabrik Adolf Rabenseifner Beteiligungs GmbH	Fulda	Germany		100.0	kEUR	62	- 1

No.	Company	City	Country	Share in % direct	Share in % indirect	Currency	Equity as per 31 Dec 2018	Net Result 2018
b) Foreign companies								
119.	Alternative Agro Energy Estate S.R.L.	Municipiul Campulung	Romania		100.0	kRON	- 91	1
120.	DC Aviation Holding Ltd.	Birkirkara	Malta		99.99	kEUR	- 332	- 9
121.	DC Aviation Ltd.	Luqa	Malta		99.8	kEUR	- 268	- 134
122.	DC Aviation Switzerland AG	Glattbrugg	Switzerland		100.0	kEUR	616	514
123.	Deilmann-Haniel RUS OOO	Meschdu-retschensk	Russia		100.0	kEUR	1,492	102
124.	Distinct Crew Management Ltd.	Luqa	Malta		99.8	kEUR	- 85	173
125.	NextRay LLC	Wilmington	USA		100.0	kUSD	-	-

II. Joint Ventures - Equity-method investments

1. Consolidated Companies

a) Domestic Companies

No.	Company	City	Country	Share in % direct	Share in % indirect	Currency	Equity as per 31 Dec 2018	Net Result 2018
126.	Arbeitsgemeinschaft BS Schachtanlage ASSE	Mühlheim an der Ruhr	Germany		50.0	kEUR	3,570	119
127.	Arbeitsgemeinschaft Burg Altena	Schmallenberg	Germany		50.0	kEUR	- 683	95
128.	Arbeitsgemeinschaft Konrad Versatzaufbereitung Los 1	Dortmund	Germany		50.0	kEUR	2,379	1,002
129.	Arbeitsgemeinschaft Sanierung Schacht Zielitz 1	Mühlheim an der Ruhr	Germany		50.0	kEUR	113	111
130.	Arbeitsgemeinschaft Neuhof Ellers	Dortmund	Germany		50.0	kEUR	5	0
131.	Arbeitsgemeinschaft Schacht Konrad 1	Mühlheim an der Ruhr	Germany		50.0	kEUR	7,187	1,116
132.	Arbeitsgemeinschaft Schacht Konrad 2	Mühlheim an der Ruhr	Germany		50.0	kEUR	10,667	4,220
133.	Arbeitsgemeinschaft Schacht Konrad Notfahreinrichtung	Dortmund	Germany		50.0	kEUR	- 16	- 14
134.	Arbeitsgemeinschaft Schaft Borth 1	Saarbrücken	Germany		50.0	kEUR	9	0
135.	Arbeitsgemeinschaft Schächte Bergwerk Siegmundshall	Mühlheim an der Ruhr	Germany		50.0	kEUR	202	0
136.	Arbeitsgemeinschaft Vorbausäule Schacht Neurode	Dortmund	Germany		50.0	kEUR	0	0
137.	Arbeitsgemeinschaft Wasserhaltung Reden	Dortmund	Germany		50.0	kEUR	0	0

b) Foreign Companies

No.	Company	City	Country	Share in % direct	Share in % indirect	Currency	Equity as per 31 Dec 2018	Net Result 2018
138.	Associated Mining Construction Inc.	Saskatchewan	Canada		50.0	kCAD	5,940	1,313
139.	Associated Mining Construction UK Limited	Birmingham	Great Britain		50.0	kGBP	2,930	5,133
140.	Dayan Contract Mining LLC	Ulaanbaatar	Mongolia		49.0	kCAD	189	162
141.	DC Aviation Al Futtaim LLC	Dubai	U.A.E.		49.0	kEUR	3,645	246
142.	Deilmann-Haniel & Drillcon Iberia ACE	Braga	Portugal		50.0	kEUR	- 2	19
143.	Deilmann Thyssen Schachtbau Sp. z.o.o.	Katowice	Poland		50.0	kPLN	- 927	- 67
144.	TRL Mining Construction LP	Regina	Canada		33.0	kCAD	3,823	3,822

III. Investments in associates and investment measured at fair value

1. Consolidated Companies

a) Domestic Companies

No.	Company	City	Country	Share in % direct	Share in % indirect	Currency	Equity as per 31 Dec 2018	Net Result 2018
145.	Murray & Roberts Holdings Ltd. *	Bedfordview	Southafrica		43.8	kZAR	5,615,000	349,000
1. Non-Consolidated Companies								
a) Foreign Companies								
146.	Aveng Ltd. *	Beijing	Southafrica		7.0	kZAR	3,346,000	- 4,093,000
147.	XDF Auto Equipment (Beijing) Co., Ltd.	Beijing	China		15.0	kCNY	67,620	- 1,060

* Figures from the interim consolidated financial statements, as Murray & Roberts and Aveng have a different financial year

The following Auditors' Report (Bestätigungsvermerk) has been issued in accordance with Section 322 German Commercial Code (Handelsgesetzbuch) on the consolidated financial statements and group management report (Konzernlagebericht) of ATON GmbH as of and for the business year from January 1 to December 31, 2018.

The English version of the report is a translation of the German version of the report. The German version prevails.

INDEPENDENT AUDITOR'S REPORT

To ATON GmbH, Munich

REPORT ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND OF THE GROUP MANAGEMENT REPORT

Qualified Audit Opinion on the Consolidated Financial Statements and Audit Opinion on the Group Management Report

We have audited the consolidated financial statements of ATON GmbH, Munich, and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at 31 December 2018**,** and 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 1 January to 31 December 2018, and the notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of ATON GmbH, Munich, for the financial year from 1 January to 31 December 2018.

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

- the accompanying consolidated financial statements comply – with the exception outlined in section "Basis for the qualified Audit Opinion on the Consolidated Financial Statements and the Audit Opinion on the Management Report" – in all material respects, with the International Reporting Standards (IFRS) as adopted by the EU, and the additional requirements of German commercial law pursuant under Section 315e (1) German Commercial Code (HGB) and, in compliance with these requirements, give a true and fair view of the assets, liabilities and financial position of the Group as at 31 December 2018, and of its financial performance for the financial year from 1 January to 31 December 2018, and

- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development.

Pursuant to Section 322 (3) Sentence 1 German Commercial Code (HGB), we declare, except for the qualification of our audit opinion on the consolidated financial statements, that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the qualified Audit Opinion on the Consolidated Financial Statements and the Audit Opinion on the Management Report

Management has not disclosed the termination benefits in the notes to the consolidated financial statements as required under IAS 24.17 (d) for the former CEO who was departing from the Group in 2018.

We conducted our audit of the consolidated financial statements and of the group management report in accordance with Section 317 German Commercial Code (HGB) and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (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 Group Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of the German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our qualified audit opinion on the consolidated financial statements and our audit opinion on the group management report.

Responsibilities of the Executive Directors for the Consolidated Financial Statements and the Group Management Report

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) German Commercial Code (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 group management report 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 group 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 group management report.

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

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 group management report 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 audit opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 German Commercial Code (HGB) 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 group management report.

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 group management report, 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 audit 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 relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit 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 group management report or, if such disclosures are inadequate, to modify our respective audit 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 with the additional requirements of German commercial law pursuant to Section 315e (1) German Commercial Code (HGB).
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.
- evaluate the consistency of the group 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 group management report. 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 audit 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.

Munich, 29 April 2019

Deloitte GmbH
Wirtschaftsprüfungsgesellschaft

(Bedenbecker)	(Mantke)
Wirtschaftsprüfer	Wirtschaftsprüfer
(German Public Auditor)	(German Public Auditor)