ATON GmbH, Munich

GROUP MANAGEMENT REPORT FOR THE FINANCIAL YEAR 2020

(Translation – the German text is authoritative)

Contents

I. GROUP PROFILE

1. Business segments

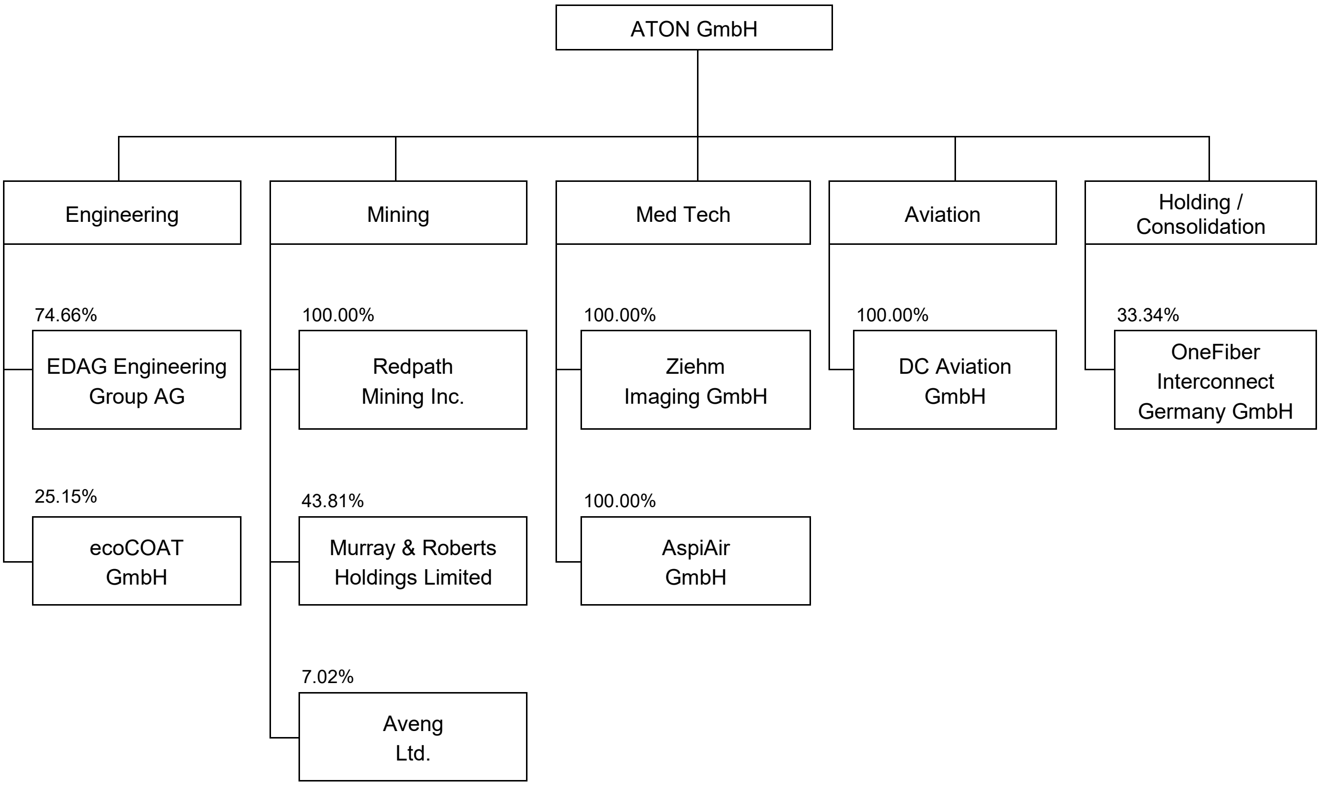
The ATON Group is a group of internationally operating companies in the business segments Engineering, Mining, Med Tech and Aviation. The segment Digital Services, established in previous year, is currently still reported within the segment Holding / Consolidation in the consolidated financial statements and is to be further expanded in the future.

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

	31.12.2020	**31.12.2019**
Subsidiaries	90	94
thereof consolidated	83	87
Joint Ventures	24	21
thereof consolidated using the equity method	24	21
Investments in associates and investments measured at fair value	4	3
thereof consolidated using the equity method	3	2
Total	**118**	**118**
thereof consolidated	**110**	**110**

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 2020:



The range of services offered by the **segment Engineering** includes in particular areas of engineering and plant construction for the automotive industry, along with other sectors of the mobility industry. In addition, this segment develops and offers new high-tech solutions for innovative products, primarily through the application of metallic coatings to almost all kind of surfaces.

The **EDAG** Group serves leading national and international vehicle manufacturers as well as technologically demanding automotive suppliers with a global network of around 60 branches and more than 8,600 employees at the world's major automotive centres. The EDAG Group also offers complementary engineering services in the areas of vehicle engineering, electrics / electronics, production solutions and software & digitalization. This comprehensive expertise allows EDAG, as an independent engineering expert, to support its customers from the original design idea through production development and prototyping to turnkey production systems. In addition, as an innovative technological leader, the Group operates competence centres for pioneering future technologies in the automotive industry: lightweight construction, electric mobility, car IT, integral safety and new production technologies. The organisation and technological focus areas are constantly being adapted in order to continue to develop the right solutions for the dynamic market environment of the mobility industry on a sustainable basis.

The **ecoCOAT** investment was acquired on 13 August 2020. Upon reaching certain milestones, ATON GmbH has the option to further increase its share through capital increases. The company is able to bond metals and polymers to almost all surfaces using an innovative and patented coating process that eliminates the need for chemicals and binders. The functional coatings are designed to customer specifications and enable a wide range of applications in the automotive, medical technology and aerospace industries, among others. Thereby, the company works as a service provider on visionary projects in electric drives and high-performance electronics.

REFORM was sold through the share purchase agreement signed on 12 August 2020 and has thus left the ATON Group.

The **segment 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 **Aveng** Group is an engineering, construction and maintenance contractor, delivering complex projects in the building, infrastructure and resources sectors. Furthermore, it is offering services across the mining value chain in open-cut contract mining.

The **segment Med Tech** develops solutions for the healthcare market in the fields of surgery and diagnostics, with a focus on X-ray diagnostics as well as products for the pharmaceuticals industry and hospitals.

The **Ziehm** Group specialises in the development, production and worldwide marketing of mobile X-ray-based system solutions for imaging, so-called C-arms. Ziehm Imaging presents new C-arm options and ergonomic features for optimal ease of use and greater efficiency in the OR. In addition to the proven high-end Ziehm Vision RFD 3D and Ziehm Vision RFD Hybrid Edition, the Ziehm Vision FD has been developed with enhanced options. The package of hardware and software features, which was further enhanced by the acquisition of Therenva SAS during the business year, supports easy communication and improves process efficiency in the OR. The NaviPort interface connects mobile 3D C-arms from Ziehm Imaging with navigation systems from leading manufacturers and, together with newly developed interfaces, also robot-guided surgery. Additionally, OrthoScan offers so-called mini C-arms for imaging in the foot and hand area, which are used by orthopaedists, trauma surgeons, and hand and foot surgeons to quickly and efficiently carry out diagnoses on extremities.

AspiAir GmbH is focused on the development of inhalation therapies.

The **segment 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 2020, the DC Aviation Group has 27 aircrafts under contract as operator. The international presence is 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.

OneFiber Interconnect Germany GmbH, held through **ATON Digital Services GmbH**, plans to build a Germany-wide, cyber-secure fibre optic network along the railway tracks with gigabit products for companies, carriers and authorities. The company is currently presented within the segment Holding / Consolidation. The **segment Digital Services** is to be further expanded within the ATON Group in the future.

2. Management

ATON GmbH is a strategic holding company with extensive competencies regarding strategy and financing. The management of the individual subsidiaries assumes direct operative responsibility and acts to the extent agreed with the management of ATON GmbH in order to achieve the financial and strategic objectives. There is a permanent exchange between the managing directors of the subsidiaries and the holding company as part of a monthly reporting.

3. Research and development

Several companies of the Group operate in technological fields that are constantly evolving. These mainly include the EDAG Group, the Ziehm Group and the Redpath Group. The newly acquired companies AspiAir and eco-COAT should also be mentioned here. In order to differentiate from competitors and to keep up with the latest technological developments, these companies individually operate research and development as well as application development departments. Permanent development and enhancement of the product portfolio is of great strategic importance in the respective industries. Research and development expenses recognised in the income statement are at EUR 10.5 million (previous year: EUR 12.7 million). In addition, there are capitalized development costs of EUR 3.9 million (previous year: EUR 3.7 million) for new and further development of products and technologies.

II. MACROECONOMIC DEVELOPMENT

During the year under review, the Corona pandemic and especially the measures that were implemented to combat it caused the global economy to contract by around 3.9 % in real terms, thus leading to the most severe recession since the end of World War II. As a result, the global gross domestic product shrank at more than twice the rate as in the financial crisis of 2008/09. Central banks and governments around the world have implemented extensive and unusually expansive measures in order to cushion the impact of this huge drop in economic activity on companies and jobs. Thanks to this support, last year's trough of the crisis was already reached in the second quarter, globally, when national lockdowns greatly restricted large areas of economic activity in almost all of the world's major economies. The subsequent gradual easing of these measures initially caused a strong rebound, which, however, lost considerable momentum in some regions towards the end of the year due to a renewed rapid rise in the number of infections. The recession and the pandemic-related restrictions also caused global trade to contract substantially, which hampered growth further, particularly in export-dependent economies.

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

in %	2020 *	2019	2018	2017	2016
World	- 3.9	2.6	3.2	3.4	2.8
Europe	- 6.7	1.5	2.1	2.9	2.0
Germany	- 5.3	0.6	1.3	2.9	2.1
North America	- 3.7	2.1	3.0	2.4	1.7
South America	- 7.1	0.9	1.6	2.0	- 0.3
Asia/Pacific	- 1.4	4.1	4.8	5.2	5.0
China	2.1	6.1	6.7	6.9	6.8
Middle East	- 6.9	0.5	0.5	0.7	5.1
Africa	- 4.1	3.1	3.1	3.6	1.8

Source: Global Insight World Overview as of 15 January 2021.
* Forecast.

The economies of the industrialised countries were hit very hard by the pandemic. This was also the case in the United States, where the economy suffered a major drop in the first half of the year, accompanied by a huge increase in unemployment. Thanks to numerous monetary and fiscal measures, as well as the comparatively moderate governmental restrictions despite continuously high infection rates, the economy recovered very dynamically in the second half of the year. Nonetheless, North America's economic output decreased by 3.7 % during the year as a whole, compared to 2019.

In the first half of the year, the Corona pandemic and the associated containment measures also caused Europe to plunge into a deep recession that affected the manufacturing and services sectors equally. This drop varied greatly among the different member states and was determined not only by the intensity of the infections but also by a country's dependence on economic sectors such as tourism and hospitality, which were particularly hard hit by the crisis. During the summer, economic activity in Europe also recovered considerably amid the easing of restrictions. However, renewed restrictions as a result of an intense second wave of infections that began in the fall affected the economy once again and led to a decrease of about 6.7 % for the year as a whole.

The impact on the job market was at least mitigated somewhat by short-time work and other employment-protection measures. Within this context, the German economy shrank by an estimated 5.3 %.

Although China was the first country to be affected by the pandemic, it was also the first to contain the spread of the virus and return to its pre-crisis level already in the course of the year despite suffering a major slump in the first quarter. China was the only major economy in the world to achieve positive growth in the year as a whole, expanding by estimated 2.1 %. The other Asian economies were also affected by the pandemic to various extents, but in some cases were able to benefit from China's quick recovery.

The oil price is one of the most important values on the commodity markets. In 2020 the average price was USD 41.74 per barrel, around 22.6 % below the previous year's level with high volatility. As of 31 December 2020, a barrel of Brent crude oil cost USD 51.35 (year-end 2019: USD 67.31) (refer to "Statista GmbH").

The inflation rate in the Euro zone declined to 0.3 % in the 2020 financial year (previous year: 1.2%) (see "EU Commission: International Monetary Fund - Wold Economic Outlook"). The marginal lending facility interest rate is unchanged from the previous year at 0.0 %. The marginal lending facility and the deposit facility also remained unchanged at 0.25 % and -0.50 % respectively.

In the heterogeneous growth environment described above, exchange rates remained volatile in the financial year. However, compared to the average exchange rate level of the previous year, the Euro performed inconsistently against the major currencies in 2020. While the average exchange rate increased by 2.0 % against the US Dollar, 1.8 % against the Chinese Renminbi and 1.4 % against the British Pound, it lost 3.8 % against the Swiss Franc and 0.1 % against the Japanese Yen.

III. DEVELOPMENT OF THE BUSINESS SEGMENTS

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

1. Engineering

Since the sale of the FFT Group at mid of 2019, the gross revenue of this business segment is mainly generated by the EDAG Group. The group's customers are mainly located in the automotive sector. Insofar, the development of the automotive industry has a significant impact on this segment. However, manufacturers need to work on long term development projects for new vehicles and technologies even in times of economic weakness and the subsequent capital expenditures on new assembly lines for new vehicle models require a longer lead time.

According to a current market study by IHS Markit (refer to “Global LV Production and Sales Forecast”, February 2021), global automotive production has slumped significantly by a further 16.2 % to 74.5 million units in 2020 due to Corona after a decline to 89.0 million units produced in 2019. This means that the automotive industry is probably one of the hardest hits by the effects of the Corona pandemic. This drastic collapse is evident in all markets worldwide, with China being least affected with a decline of 4.2 %. The decline in units produced in Europe at 21.6 % and in North America at 20.1 % is significantly higher. Due to the expected global economic recovery in the course of 2021, automotive production should also recover and grow by 13.7 % in 2021. However, the production level of 2019 will only be reached again in 2022 or 2023.

The automotive market is undergoing a period of transition and continues to be subject to major structural changes. Innovation drivers such as autonomous and connected driving, digitalization, electromobility and new mobility services are having an impact worldwide and are also influencing the market for development service provider (EDL). At the same time, there are changing customer needs (including the declining relevance of the "automobile as a status symbol"), falling demand for automobiles, and political uncertainties. These trends are creating a highly dynamic environment, which entails both opportunities and risks for the EDL market. In the short term, budget shifts and reprioritization of investment decisions on the customer side result in a very volatile market environment. This is characterized by delayed contract awards and postponement of projects. In the medium and long term, development expenditure is expected to increase, primarily in the areas of software and electrification.

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

in EUR '000	2020	2019	Change
Gross revenue	650,467	1,057,042	- 406,575
EBITDA	24,735	441,693	- 416,958
EBITDA margin in %	3.8	41.8	- 38.0
EBIT	- 48,463	363,431	- 411,894
EBIT margin in %	- 7.5	34.4	- 41.9

When comparing with the same period of the previous year, the sale of the FFT Group at the end of May 2019 has to be considered, which significantly restricts comparability.

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

In the period under review, the EDAG Group generated a gross revenue of EUR 650.5 million, which is significantly below previous year's gross revenue (EUR 781.7 million) due to the ongoing difficult and dynamic market conditions and the additional challenges posed by the Corona pandemic. While the business unit Electrics / Electronics remained at approximately the same level as the previous year, the business units Vehicle Engineering and Production Solutions recorded a significant decline in net sales. In this difficult environment, EBIT also declined to EUR -23.8 million (previous year: EUR 16.9 million). In addition to the Corona related decline in revenues, impairment losses on receivables of EUR 21.4 million had to be recognised, which led to a significant drop in EBIT. In addition, the EDAG Group's EBIT is burdened by amortisation effects on hidden reserves from the purchase price allocation at ATON Group level in the amount of EUR 24.7 million (previous year: EUR 24.5 million). As of 31 December 2020, the order backlog amounts to EUR 333.8 million (as of 31 December 2019: EUR 294.4 million). However, the order backlog does not include potential requests from framework contracts or from series orders.

Until its sale in previous year, the FFT Group presented a gross revenue of EUR 285.0 million and an EBIT of EUR 18.6 million. Furthermore, the deconsolidation of the FFT Group resulted in a positive effect on EBIT of EUR 348.4 million.

REFORM, which in 2019 has been reported as assets / liabilities held for sale in accordance with IFRS 5 due to the sales negotiations, was sold contractually on 12 August 2020. The company no longer contributed to the Group's gross revenue (previous year: EUR 3.4 million) and EBIT (previous year: EUR 4.0 million (including postings on group level)) in the financial year. Additionally, the deconsolidation in August 2020 had no income effect, as the net assets were already measured at the then finally agreed purchase price as of the previous year's reporting date.

The 25.1 % interest in ecoCOAT GmbH, acquired under the investment agreement dated 13 August 2020, is accounted for using the equity method and therefore has not yet contributed to the Group's gross revenue and EBIT.

2. Mining

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

The Bloomberg Commodity Index, which reflects the development of commodity prices, was very volatile during financial year 2020. After a sharp Corona-related slump in March / April, it recovered towards the end of the year, so that the index declined by only 3.5 % year-on-year. However, the increase towards the end of the year was driven less by rising economic confidence and more by supply issues on the oil market.

Prices for industrial metals increased consistently compared to previous year. The prices for nickel increased by 28 %, those for copper by 27 %, those for zinc by 16 %, those for aluminium by 12 % and those for lead by 5 % (based on 1-month futures contracts according to "DEKA Macro - Research Economics Commodities" from January 2021).

The prices of precious metals also rose consistently, mainly due to interest rate cuts by central banks. The price of silver rose by 42 %, gold by 19 %, platinum and palladium by 13 % (based on 1-month futures contracts according to "DEKA Macro - Research Economics Commodities" from January 2021).

The price of potash, however, fell by almost 24 % in 2020 (refer to the spot price development for potassium chloride at https://ycharts.com).

Since 2016, commodity prices have moved broadly volatile sideways on the whole and then slid significantly due to the global recession triggered by the Corona pandemic. In the course of the second half of the year, commodity prices have recovered significantly. Prices for precious and industrial metals in particular have risen and are now significantly higher than a year ago.

The key performance indicators developed as follows compared to the previous year's period:

in EUR '000	**2020**	**2019**	**Change**
Gross revenue	637,529	724,741	- 87,212
EBITDA	100,849	102,913	- 2,064
EBITDA margin in %	15.8	14.2	1.6
EBIT	33,197	37,596	- 4,399
EBIT margin in %	5.2	5.2	0.0

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

The Redpath Group was affected by the Corona pandemic regional differently from the second quarter of 2020 onwards, so that some projects were either suspended, delayed or terminated prematurely. Canada and Africa were particularly affected in this regard. In addition, the decline in commodity prices observed during the course of the recession led to lower demand for the services offered by Redpath. Furthermore, the closure of the Chilean subsidiary took place during the second half of 2020, which also had a negative effect on earnings. In the meantime, however, the global market for mining services is showing a positive trend overall again, even if this varies greatly from region to region.

Compared to the same period of the previous year, the Redpath Group had to record a decrease in gross revenue by EUR 87.2 million or 12.0 % to EUR 637.6 million due to Corona and was unable to achieve its targets for the past financial year. Without exchange rate effects, the decline would only be 9.4 %. The Redpath Group still achieved an EBIT of EUR 33.1 million (previous year: EUR 39.0 million), which corresponds to an EBIT margin of 5.2 % (previous year: 5.4 %). Among other things, government Corona subsidies in Canada also had an impact here.

The order backlog as of 31 December 2020 amounts to EUR 813.3 million (as of 31 December 2019: EUR 917.6 million).

3. Med Tech

The segment Med Tech mainly consists of the Ziehm Group and AspiAir GmbH.

In 2019, worldwide health care expenditure was approximately at USD 8.4 trillion (refer to „Deloitte - 2020 Global Health Care Outlook“). While expenditure rose by an average of 2.8 % per year between 2014 and 2019, it remained roughly the same in 2020 due to the Corona pandemic (refer to IHS Markit – „Global healthcare spend to remain stable“).

The size of the global medical technology market was approximately USD 457 billion in 2019, and forecasts predict that the value will grow to approximately USD 595 billion in 2024, an average growth of 5.4 % per year (refer to "SSC Consult - 2019 Med Tech M&A Market Overview"). However, due to the Corona crisis, there is some uncertainty as to whether this growth can be achieved.

Imaging diagnostics, the area in which the sub segment "mobile C-arms", served by Ziehm Group, is located, is the third largest market segment of the medical technology market after "in-vitro diagnostics" and "cardiology". Global revenues in the imaging diagnostics segment are expected to increase from USD 40 billion to USD 51 billion between 2017 and 2024, corresponding to an average annual growth of 3.5 % (refer to "SSC Consult 2019 - Med Tech M&A Market Overview"). The volume of the mobile C-arms sub-segment is estimated to be between USD 800 to 900 million.

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

in EUR '000	2020	2019	Change
Gross revenue	180,195	186,652	- 6,457
EBITDA	28,058	29,203	- 1,145
EBITDA margin in %	15.6	15.6	- 0.1
EBIT	19,139	22,202	- 3,063
EBIT margin in %	10.6	11.9	- 1.3

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

In the period under review, the Ziehm Group generated a gross revenue of EUR 180.2 million, which corresponds to a slight decrease of 3.5 % compared to the same period of the previous year (EUR 186.7 million). The EBIT of EUR 20.3 million is also significantly below previous year's period (EUR 22.2 million). Due to the less favourable product / country mix, the EBIT margin declined to 11.3 % (previous year: 11.9 %). The order backlog as of 31 December 2020 amounted to EUR 17.1 million (as of 31 December 2019: EUR 13.5 million).

AspiAir GmbH, which was newly founded towards the end of 2019, has commenced its activities, the development of inhalation therapies, only in 2020, so that it has not yet been able to generate any gross revenue. EBIT amounts to EUR -1.2 million and results primarily from research and development activities not yet eligible for capitalisation.

4. Aviation

The aviation industry has been facing an existential crisis since spring 2020. The severity and duration of the Corona pandemic and its structural consequences remain uncertain. Due to border closures and lockdowns in almost all countries worldwide, travel flows have decreased drastically, with a corresponding impact on the travel and tourism business of airlines and suppliers to the aviation industry. Airlines have been forced to drastically adjust their capacity, testing the resilience of their existing crisis management and business continuity plans. 2020 brought the largest flight ban in aviation history. The business aviation industry was hit hard by the crisis starting in mid-March, reducing its activity by up to 76 % in April. From the end of May, business aviation gradually recovered through the summer, with traffic levels in August matching those of 2019. However, a slowdown was observed in September, showing the first effects of the second pandemic wave. October followed the negative trend, but without a clear second collapse. From the end of October, business aviation stabilised at minus 20 % year-on-year (source: EEBAA European Business Aviation Association).

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	2020	2019	Change
Gross revenue	63,690	73,317	- 9,627
EBITDA	2,068	2,237	- 169
EBITDA margin in %	3.2	3.1	0.2
EBIT	67	242	- 175
EBIT margin in %	0.1	0.3	- 0.2

While the restrictions caused by the Corona virus threaten the existence of individual competitors in the business aviation industry, the order and earnings situation at DC Aviation was more differentiated due to its business areas and contract structures. The personnel capacities of the technical hangar were initially utilised at a stable rate until mid-year and again towards the end of the year, and the crew personnel were on permanent standby for the aircraft owners. Fixed personnel costs in engineering and flight operations, which amount to around 70 %, were thus financed.

Gross revenue declined by a total of EUR 9.6 Mio to EUR 63.7 million, while EBIT, currently at EUR 0.1 Mio, is slightly below previous year's level, but is still in positive territory despite the significant decline in gross revenue. This is due to the fact that based on DC Aviation's assessment the business model is fundamentally robust in the face of usual fluctuations in capacity utilisation of 10 to 20 %, as DC Aviation does not bear any operational fixed cost risks and is not necessarily dependent on additional third-party charter income. Nevertheless, such a drastic reduction in flight movements is also accompanied by revenue shortfalls, because in addition to charter agency fees, variable revenue components for services provided by the supporting ground services (flight planning and monitoring, handling, technical services) also fall in some cases. To compensate for these reductions in revenue, a comprehensive earnings stabilisation program was successfully implemented to safeguard the company's operating result (EBIT). Since the low point in April, when flight operations recorded their lowest level ever with a load factor of only 5 % compared to plan, flight volumes have recovered slowly but steadily, stabilising at 52 % of the planned load factor for the total year.

As of 31 December 2020, DC Aviation's fleet network operated a total of 27 aircrafts (including 26 business jets and 1 helicopter).

IV. RESULTS OF OPERATIONS, FINANCIAL AND NET ASSETS POSITION

The business development of the ATON Group, which results from the sum of the segments presented above 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 taxes (EAT).

1. Results of operations

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

in EUR '000	2020		2019		Change	
Revenue	1,536,849	100.3%	2,040,301	99.9%	- 503,452	- 24.7%
Gross revenue	**1,532,418**	**100.0%**	**2,041,737**	**100.0%**	**- 509,319**	**- 24.9%**
Cost of materials	- 322,496	- 21.0%	- 570,568	- 27.9%	248,072	- 43.5%
Gross profit	**1,209,922**	**79.0%**	**1,471,169**	**72.1%**	**- 261,247**	**- 17.8%**
Personnel expenses	- 873,022	- 57.0%	- 1,025,021	- 50.2%	151,999	- 14.8%
Impairment losses / reversal of impairment losses on financial assets	- 21,769	- 1.4%	- 8,025	- 0.4%	- 13,744	171.3%
Other operating expenses ./. income	- 180,865	- 11.8%	121,609	6.0%	- 302,474	- 248.7%
EBITDA	**134,266**	**8.8%**	**559,732**	**27.4%**	**- 425,466**	**- 76.0%**
Depreciation and amortisation	- 148,992	- 9.7%	- 150,998	- 7.4%	2,006	- 1.3%
Impairment losses	- 3,221	- 0.2%	- 2,006	- 0.1%	- 1,215	60.6%
EBIT	**- 17,947**	**- 1.2%**	**406,728**	**19.9%**	**- 424,675**	**- 104.4%**
Net interest expense	- 26,495	- 1.7%	- 18,451	- 0.9%	- 8,044	43.6%
Other financial result	- 40,612	- 2.7%	- 69,146	- 3.4%	28,534	- 41.3%
Net financial result	**- 67,107**	**- 4.4%**	**- 87,597**	**- 4.3%**	**20,490**	**- 23.4%**
Income taxes	- 5,175	- 0.3%	- 22,994	- 1.1%	17,819	- 77.5%
Consolidated earnings after taxes (EAT)	**- 90,229**	**- 5.9%**	**296,137**	**14.5%**	**- 386,366**	**- 130.5%**
EAT attributable to non-controlling interest	- 16,615	- 1.1%	372	0.0%	- 16,987	- 4,566.4%
EAT attributable to owners of the parent	**- 73,614**	**- 4.8%**	**295,765**	**14.5%**	**- 369,379**	**- 124.9%**

Previous year's results of operations are significantly influenced by the deconsolidation of the FFT Group at the end of May 2019. Thus, the comparability of the consolidated income statement with the previous year's period is limited.

Gross revenue is EUR 509.3 million or 24.9 % below previous year's period, which is primarily due to the deconsolidation of the FFT Group in May 2019, but also to the Corona-related decline in EDAG's gross revenue. As a consequence, the gross revenue for the segment Engineering decreased by EUR 406.6 million to EUR 650.5 million. But also the segments Mining, Aviation and Med Tech present a Corona-related decline in gross revenue by EUR 87.2 million to EUR 637.5 million, by EUR 9.6 million to EUR 63.7 million and by EUR 6.5 million to EUR 180.2 million, respectively.

The cost of materials ratio declined from 27.9 % to 21.0 %. This is primarily due to the segment Engineering, where the ratio fell from 28.0 % to 12.3 % due to the disposal of the material cost-intensive FFT Group. The segments Med Tech and Aviation also reported a slight decline in the ratio from 41.8 % to 38.8 % and from 62.2 % to 59.7 %, respectively. However, the cost of materials ratio in the segment Mining increased slightly from 20.4 % to 20.9 %.

Gross profit decreased by EUR 261.2 million or 17.8 % to EUR 1,209.9 million. Gross profit margin increased to 79.0 % (previous year's period: 72.1 %).

The personnel expenses ratio increased from 50.2 % to 57.0%. This is mainly due to the segment Engineering and the sale of the FFT Group at the end of May 2019, which had an above-average cost of materials ratio and a below-average personnel expenses ratio.

The net amount of other operating expenses / income deteriorated by EUR 302.5 million from EUR 121.6 million in previous year's period to EUR -180.9 million in the reporting period, which is mainly due to the fact that a deconsolidation gain of EUR 348.4 million for the FFT Group was reported here in the previous year. At the same time, however, other operating expenses decreased by EUR 55.2 million, which, in addition to the disposal of the FFT Group at the end of May 2019, can be traced to cost savings during the Corona crisis. One example to be mentioned are the significantly reduced travel costs.

As a result of the effects described above, EBITDA fell by EUR 425.5 million to EUR 134.3 million.

Compared to the previous year's period, depreciation and amortisation decreased by EUR 0.8 million to EUR 152.2 million, which is mainly due to the sale of the FFT Group. Impairment losses on intangible assets and property, plant and equipment were recognized at EDAG (EUR 2.6 million) and Redpath (EUR 0.6 million) in the current financial year.

EBIT declined by EUR 424.7 million to EUR -17.9 million (previous year's period: EUR 406.7 million). This includes the already mentioned deconsolidation gain for the FFT Group in the previous year. In addition, there were significant operational effects from the Corona pandemic. The EBIT margin declined from 19.9 % in the same period of the previous year to -1.2 % in the reporting period. This decline is evident in almost all segments. In the segment Engineering, the EBIT margin deteriorated from 34.4 % in the previous year to -7.5 %, mainly due to the deconsolidation of the FFT Group in the previous year and the effects of the Corona crisis. In the segment Med Tech the EBIT margin also decreased to 10.6 % (previous year: 11.9 %) as a result of the Corona crisis. In the segment Mining, however, the EBIT margin remained stable at 5.2 % (previous year: 5.2 %).

The net interest result is negative at EUR -26.5 million, a deterioration of EUR 8.0 million compared to the previous year's period, mainly due to higher interest expenses from the profit transfer from ATON GmbH to ATON 2 GmbH and the subsequent granting back of a loan.

The other financial result improved from EUR -69.1 million in the comparative period to EUR -40.6 million in the reporting period, mainly due to the lower impairment to the stock market price of the shares in the Murray & Roberts Group accounted for using the equity method amounting to EUR -36.4 million (previous year: EUR -84.4 million). In addition, income from securities increased by EUR 9.0 million. This contrasts with a

EUR 27.4 million reduction in the result from investments accounted for using the equity method, which is also attributable to the investment in the Murray & Roberts Group.

With earnings before income taxes (EBT) of EUR -85.1 million, the tax rate in the reporting period is at -6.1 % (previous year's period: 7.2 %), which in the current loss situation is primarily due to the composition of earnings within the Group companies. In addition, the impairment on the Murray & Roberts shares and the negative result from companies accounted for using the equity method have no tax effect. Furthermore, losses have been incurred in Group companies, where these are not expected to be used from a current perspective and have therefore not led to the recognition of deferred tax assets.

In line with the aforementioned effects, the consolidated net income (EAT) declined by a total of EUR 386.4 million to EUR -90.2 million. After deduction of EAT attributable to non-controlling interest, the EAT attributable to owners of the parent amounts to EUR -73.6 million (previous period: EUR 295.8 million).

Adjusting previous year's figures regarding the disposed components, the FFT Group and REFORM, gross revenue is still EUR 227.7 million lower than in the previous year, EBIT declines by EUR 61.7 million and EAT by EUR 29.5 million. This decrease has been expected in the previous year's financial statements, but is now even stronger than expected due to Corona.

2. Financial position

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

in EUR '000	2020	2019	Change	
Cash and cash equivalents at the beginning of the period	**527,886**	**559,309**	**- 31,423**	**- 5.6%**
Income before interest, dividends and income taxes	- 60,135	337,108	- 397,243	
Depreciation and amortisation / write-ups of assets	182,213	236,774	- 54,561	
Result from the disposal of property, plant and equipment and securities	- 6,542	- 999	- 5,543	
Result from the disposal / deconsolidation of consolidated subsidiaries	15	- 348,424	348,439	
Change in provisions	10,409	720	9,689	
Other non-cash transactions	23,574	- 8,156	31,730	
Gross cash flow	**149,534**	**217,023**	**- 67,489**	**- 31.1%**
Interest, dividends and income taxes paid / received	- 49,447	- 41,594	- 7,853	
Changes in trade working capital	111,705	- 65,361	177,066	
Changes in other working capital	- 42,780	22,161	- 64,941	
Cash flow from operating activities	**169,012**	**132,229**	**36,783**	**27.8%**
Investments in / proceeds from the disposal of intangible assets and property, plant and equipment	- 37,066	- 61,204	24,138	
Investments in / proceeds from the disposal of financial assets / associates	128,282	- 265,139	393,421	
Proceeds from the disposal of / payments for the acquisition of consolidated subsidiaries	- 12,194	466,182	- 478,376	
Cash flow from investing activities	**79,022**	**139,839**	**- 60,817**	**- 43.5%**
Proceeds from shareholder	666,000	195,000	471,000	
Payments to shareholders	- 696,661	- 262,117	- 434,544	
Payments for the acquisition of non-controlling interests	- 4,880	- 3,655	- 1,225	
Proceeds from / repayments of loans and leases liabilities	- 115,368	- 238,407	123,039	
Cash flow from financing activities	**- 150,909**	**- 309,179**	**158,270**	**- 51.2%**
Effect of changes in exchange rates	39,242	5,688	33,554	
Cash and cash equivalents at the end of the period	**664,253**	**527,886**	**136,367**	**25.8%**

The cash flow from operating activities increased by EUR 36.8 million compared to previous year’s period.

The gross cash flow is at EUR 149.5 million and therefore EUR 67.5 million below previous year’s level. This is mainly caused by an EUR 397.2 million lower earnings before interest, dividends and income taxes, which in previous year included a result of EUR 348.4 million from the disposal / deconsolidation of consolidated subsidiaries from the sale of the FFT Group. In contrast, depreciation and amortisation to be added back decreased by EUR 54.6 million.

The improvement in cash flow from operating activities is mainly due to the reduction in trade working capital by EUR 111.7 million (previous year: increase in trade working capital by EUR 65.4 million). This leads to a total improvement of EUR 177.1 million compared to the previous year. In contrast, other working capital increased by EUR 42.8 million, which means a deterioration of EUR 64.9 million compared to the previous year. Thus, the improvement in changes in working capital in the reporting period of overall EUR 112.1 million has a positive effect on the development of cash flow from operating activities.

The cash flow from investing activities shows a cash inflow of EUR 79.0 million in the reporting period (previous year: EUR 139.8 million). Net investments in property, plant and equipment and intangible assets decreased by EUR 24.1 million to EUR 37.1 million. The investments in / proceeds from the disposal of financial assets and associated companies reflect a net cash inflow of EUR 128.3 million in the reporting period (previous year: net cash outflow EUR 265.1 million). This primarily relates to proceeds from the disposal of securities (mainly commercial papers), which are measured at fair value through profit and loss. These proceeds are offset by additional loans granted. In the previous year's period the proceeds from the sale of the FFT Group in the amount of EUR 466,2 million had an additionally positive effect on the development of cash flow from investing activities.

The cash flow from financing activities shows a cash outflow of EUR 150.9 million (previous year: cash outflow of EUR 309.2 million). The cash flow from financing activities is mainly due to the net payments to shareholders amounting to EUR 30.7 million (in previous year net pay-outs of EUR 67.1 million), the net repayment of bank loans and lease liabilities of EUR 115.4 million (in previous year net repayment of EUR 238.4 million) as well as payments for the acquisition of non-controlling interests in the amount of EUR 4.9 million (previous year: EUR 3.7 million).

Taking into account the effect of changes in currency exchange rates, cash and cash equivalents increased by a total of EUR 136.4 million in the reporting period (previous year: EUR -31.4 million). Accordingly, cash and cash equivalents increased from EUR 527.9 million at the beginning of the reporting period to EUR 664.3 million at the end of the reporting period.

3. Net assets position

in EUR '000	31.12.2020		31.12.2019		Change	
Assets						
Intangible assets	377,388	15.8%	389,691	15.1%	- 12,303	- 3.2%
Property, plant and equipment	474,828	19.9%	546,735	21.2%	- 71,907	- 13.2%
Other financial assets and at-equity-investments	346,734	14.5%	510,812	19.8%	- 164,078	- 32.1%
Inventories	101,952	4.3%	108,016	4.2%	- 6,064	- 5.6%
Trade and other receivables	333,203	13.9%	383,006	14.8%	- 49,803	- 13.0%
Deferred tax assets	26,518	1.1%	16,168	0.6%	10,350	64.0%
Cash and cash equivalents	664,253	27.8%	527,886	20.4%	136,367	25.8%
Contract assets	58,387	2.4%	92,135	3.6%	- 33,748	- 36.6%
Other assets	7,400	0.3%	8,609	0.3%	- 1,209	- 14.0%
Total assets	**2,390,663**	**100.0%**	**2,583,058**	**100.0%**	**- 192,395**	**- 7.4%**
Equity and liabilities						
Equity	907,807	38.0%	955,869	37.0%	- 48,062	- 5.0%
Provisions	88,286	3.7%	82,748	3.2%	5,538	6.7%
Financial liabilities	1,012,611	42.4%	1,135,694	44.0%	- 123,083	- 10.8%
Trade and other payables	186,326	7.8%	236,289	9.1%	- 49,963	- 21.1%
Deferred tax liabilities	47,783	2.0%	54,365	2.1%	- 6,582	- 12.1%
Contract liabilities	136,316	5.7%	107,098	4.1%	29,218	27.3%
Other liabilities	11,534	0.5%	10,995	0.4%	539	4.9%
Total equity and liabilities	**2,390,663**	**100.0%**	**2,583,058**	**100.0%**	**- 192,395**	**- 7.4%**

The balance sheet total decreased by EUR 192.4 million compared to 31 December 2019.

The decline of EUR 12.3 million in intangible assets is mainly attributable to scheduled amortisation (EUR 38.1 million), particularly of the customer base. This is offset by additions of EUR 10.8 million in the reporting period and additions of EUR 1.9 million from the changes in scope of consolidation from the acquisition of Therenva SAS by the Ziehm Group. The acquisition also led to an increase in goodwill of EUR 18.2 million. Currency translation effects of EUR 5.0 million have the opposite effect on goodwill.

Property, plant and equipment decreased by EUR 71.9 million. This is primarily due to depreciation of EUR 114.1 million, disposals of EUR 34.5 million and currency translation effects of EUR 20.8 million. Additions in the reporting period amount to EUR 97.7 million.

Financial assets decreased by EUR 164.1 million. This is primarily due to the reduction of commercial papers presented as current other financial assets by EUR 166.7 million. Additionally, a further impairment of the shares in Murray & Roberts Holding Limited in the amount of EUR 36.4 million to the stock market price had to be recognised (book value after impairment: EUR 86.2 million). In contrast, loans to related parties increased by EUR 37.5 million.

Trade and other receivables fell by EUR 49.8 million. This is mainly due to a decrease in net trade receivables in the amount of EUR 85.8 million, which is mainly attributable to the EDAG Group. Overall, risk allowances on trade receivables increased by EUR 19.4 million. On the other hand, other receivables increased by EUR 36.0 million, which is mainly due to the receivable of ATON GmbH from its shareholder ATON 2 GmbH from the profit and loss transfer in the amount of EUR 48.5 million and, in the opposite direction, to a decrease in VAT refund claims by EUR 16.3 million.

Working capital declined by a total of EUR 68.9 million, which is primarily due to the decrease in trade receivables and other receivables by EUR 49.8 million, as explained above. Inventories also decreased by EUR 6.1 million and contract assets by EUR 33.7 million. On the other hand, trade payables and other liabilities also declined by EUR 50.0 million. This increase in working capital is partly offset by the decrease in contract liabilities by EUR 29.2 million.

Cash and cash equivalents increased by EUR 136.4 million. Regarding the changes in cash and cash equivalents, please refer to the comments under section “Financial position”.

Contract assets decreased by EUR 33.7 million, which is due a reduction by EUR 19.5 million at EDAG Group and by EUR 14,2 million at Redpath Group.

Other assets, which declined by EUR 1.2 million to EUR 7.4 million, include income tax receivables of EUR 7.0 million and aircraft spare parts amounting to EUR 0.4 million as at balance sheet date. In the previous year, this line included assets held for sale in the amount of EUR 3.1 million, which were disposed of with the sale of REFORM Maschinenfabrik Adolf Rabenseifner GmbH & Co. KG in 2020.

The equity ratio increased from 37.0 % at the end of the previous year to 38.0 % as at the balance sheet date, but equity declined by EUR 48.1 million in absolute terms. This is mainly due to the negative consolidated earnings after tax of EUR -90.2 million in the reporting period. Of this amount, EUR 49.7 million was taken over by the shareholder ATON 2 GmbH under the profit and loss transfer agreement. According to IFRS, this profit and loss transfer is to be accounted for as an equity transaction. In addition, the step acquisition of minority interests within EDAG Group and Redpath Group led to an offset against reserves without effect on the income statement reducing equity by EUR 4.9 million. Other comprehensive income decreased by EUR 2.6 million, primarily due to currency translation effects and actuarial gains and losses relating to pension provisions.

Provisions increased by EUR 5.5 million. This is primarily due to higher other provisions (EUR +10.2 million) and lower tax provisions (EUR -4.6 million) and pension provisions (EUR -0.1 million).

Financial liabilities were reduced by EUR 123.1 million. This is mainly due to loan repayments to banks of EUR 55.3 million, as well as a decrease in liabilities from loans from shareholders of EUR 30.7 million. Liabilities to related parties were reduced by EUR 20.0 million, mainly due to the repayment of the loan by the EDAG Group to VKE Versorgungskasse EDAG-Firmengruppe e.V. in the amount of EUR 20.4 million. In addition, lease liabilities decreased by EUR 18.0 million.

Trade and other payables declined by EUR 50.0 million, which is mainly due to the decrease in trade payables (EUR -43.6 million), liabilities to employees (EUR -8.3 million), advance payments received on orders (EUR -4.1 million) and VAT liabilities (EUR -3.2 million). On the contrary, liabilities from business combinations increased by EUR 5.2 million, which is mainly due to outstanding payments from earn-out clauses in connection with the acquisition of Therenva SAS. In addition, liabilities to associates increased by EUR 3.3 million.

Contract liabilities increased by EUR 29.2 million. This balance sheet item essentially results from the fact that customers have (partially) paid the consideration before the Group has provided the service over a certain period of time. While contract liabilities increased by EUR 79.9 million at EDAG Group, mainly due to advance payments received for long-term projects, and by EUR 0.8 million at Ziehm Group, the line item decreased by EUR 51.5 million at Redpath Group.

Other liabilities increased by EUR 0.5 million to EUR 11.5 million as of the reporting date and exclusively include income tax liabilities. These increased by EUR 3.6 million compared to the previous year. The liabilities associated with assets held for sale in the amount of EUR 3.1 million, which were still reported here in the previous year, decreased with the sale of REFORM Maschinenfabrik Adolf Rabenseifner GmbH & Co. KG in 2020.

The following overview presents assets and capital according to maturity:

in EUR '000	31.12.2020		31.12.2019	
Non-current assets				
Intangible assets and property, plant and equipment	852,216	35.6%	936,426	36.3%
Financial assets	205,392	8.6%	241,711	9.4%
Other assets	39,681	1.7%	23,266	0.9%
	1,097,289	**45.9%**	**1,201,403**	**46.5%**
Current assets				
Inventories	101,952	4.3%	108,016	4.2%
Receivables and contract assets	378,839	15.8%	468,873	18.2%
Other financial assets	141,342	5.9%	269,101	10.4%
Cash and cash equivalents	664,253	27.8%	527,886	20.4%
Other assets	6,988	0.3%	7,779	0.3%
	1,293,374	**54.1%**	**1,381,655**	**53.5%**
Non-current capital				
Equity	907,807	38.0%	955,869	37.0%
Financial liabilities	341,251	14.3%	350,661	13.6%
Provisions, other liabilities, trade payables and contract liabilities	78,972	3.3%	123,918	4.8%
Other liabilities	47,783	2.0%	54,365	2.1%
	1,375,813	**57.5%**	**1,484,813**	**57.5%**
Current capital				
Financial liabilities	671,360	28.1%	785,033	30.4%
Provisions, other liabilities, trade payables and contract liabilities	331,956	13.9%	302,217	11.7%
Other liabilities	11,534	0.5%	10,995	0.4%
	1,014,850	**42.5%**	**1,098,245**	**42.5%**

Non-current assets of EUR 1,097.3 million are financed by non-current capital by 125.4 % (previous year: 123.6 %). Including current financial liabilities from loans to related parties and shareholders in the amount of EUR 577.6 million (previous year: EUR 628.3 million), which are available to the Group as basic funding, the coverage ratio amounts to 178.0 % (previous year: 175.9 %). Furthermore, 21.5 % (previous year: 20.5 %) of current assets are financed by non-current capital.

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

in EUR '000	31.12.2020	Share in total assets	31.12.2019	Share in total assets
Current assets	1,293,374	54%	1,381,655	53%
Current capital	1,014,850	42%	1,098,245	43%
Surplus cover or Coverage ratio	**278,524**	**127%**	**283,410**	**126%**

The coverage ratio shows that the Group continues to have extremely solid financing as of 31 December 2020.

Net debt position as of 31 December 2020 is as follows:

in EUR '000	31.12.2020	31.12.2019	Change
Cash and cash equivalents	664,253	527,886	136,367
Short-term securities	63,459	230,137	- 166,678
Short-term loans	77,883	38,941	38,942
Financial liabilities	- 1,012,611	- 1,135,694	123,083
Net cash (+) / debt (-)	**- 207,016**	**- 338,730**	**131,714**

The net debt position has improved significantly compared with the previous year's balance sheet date. The sale of short-term securities in the form of commercial papers was mainly used to repay the net loans to ATON 2 GmbH (within financial liabilities), to build up a managed securities portfolio and to extend loans mainly to related parties. In addition, cash and cash equivalents increased.

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 companies. In selected training programmes, our employees are continuously developed in professional, methodological and social skills. Furthermore, the Group promotes a systematic professional development training programme and prepares young employees to take on management responsibilities.

With initial vocational training and cooperative study program opportunities in business and technical professions, the company offers young professionals a broad selection of opportunities for starting their career. The promotion of training programmes is complemented by the cooperation with public educational institutions and universities.

In 2020, EUR 4.9 million (previous year: EUR 7.6 million) were invested in further training and continuing vocational education for our employees. The decline is due to the deconsolidation of the FFT Group mid of 2019 and the limited opportunities for training and development in 2020 due to the Corona pandemic.

The ATON Group employed on average 14,616 employees during financial year (previous year: 17,330 employees), whereby the decrease is also mainly due to the deconsolidation of the FFT Group at the end of May 2019.

In the financial year, the breakdown of employees, as non-financial performance indicator, into categories was as follows:

	2020	in %	2019	in %
Salaried staff	10,259	70%	11,946	69%
Industrial workers	3,929	27%	4,645	27%
Trainees and interns	428	3%	739	4%
Total employees	**14,616**	**100%**	**17,330**	**100%**
Production and service	12,748	87%	15,250	88%
General administration	1,370	9%	1,638	9%
Sales and marketing	407	3%	355	2%
Research and development	91	1%	87	1%
Total employees	**14,616**	**100%**	**17,330**	**100%**
Germany	6,777	46%	7,865	45%
Europe (excluding Germany)	1,880	13%	2,056	12%
North America	1,696	12%	2,071	12%
South America	289	2%	366	2%
Australia	858	6%	790	5%
Asia	2,158	15%	2,699	16%
Africa	958	7%	1,483	9%
Total employees	**14,616**	**100%**	**17,330**	**100%**

VI. EXPECTED DEVELOPMENTS, OPPORTUNITIES AND RISKS

1. Expected developments

Although vaccine approvals have raised hopes for a turnaround in the pandemic before the end of 2021, possible further waves and new variants of the virus are a cause for concern. Amid exceptional uncertainties, the global world economy is expected to grow 5.5 % in 2021 and 4.2 % in 2022. This outlook given by the International Monetary Fund (IMF) in January 2021 reflects the expectation of a vaccine-powered strengthening in economic activity later in the year and additional policy support in some major economies.

The strength of the recovery is expected to vary significantly from country to country, depending on the possibilities for medical intervention, the effectiveness of policy support measures, exposure to cross-country spillovers and the structural characteristics in place at the start of the crisis. In this context, growth of 5.1 % is expected for the USA in 2021, 4.2 % for the Euro zone and 8.1 % for China. The emerging and developing countries are expected to grow by an average of 6.3 % (refer to World Economic Outlook by International Monetary Fund (IMF) from January 2021).

Strong multilateral collaboration is needed to bring the pandemic globally under control everywhere. These efforts include bolstering funding for the COVAX facility to accelerate access to vaccines for all countries, ensuring universal distribution of vaccines, and facilitating access to therapeutics at affordable prices for all. Many countries, particularly low-income developing countries, have entered the crisis with high levels of debt that will increase during the pandemic. The global community will need to continue to work closely together to ensure adequate access to international liquidity for these countries.

The launch of the vaccination in some countries in December 2020 or early 2021 gives hope for a possible end to the pandemic. Moreover, economic data show that momentum in the second half of 2020 has been stronger on average in all regions than still expected in autumn 2020. Despite the high and rising death toll from the pandemic, economic activity appears to be adjusting to subdued contact-intensive activity over time.

With increasing availability of vaccines, improved therapies, testing, and tracing, local transmission of the virus is expected to reach low levels everywhere by the end of 2022. Some regions and countries will reach low local transmission earlier than others, depending on country-specific circumstances.

The substantial fiscal aid announced for 2021 in some countries, including most recently the USA and Japan, together with the release of Next Generation EU funds, will help boost economic activity among advanced economies, with favourable spillovers to trading partners. However, fiscal deficits are expected to decline in most countries in 2021 as revenues increase and spending automatically falls with the recovery.

Major central banks are assumed to maintain their current policy rate levels throughout the forecast horizon until the end of 2022. As a result, financial conditions in advanced economies are expected to remain largely at current levels, while gradually improving in emerging and developing economies. The markets thus remain optimistic about the outlook for 2021 and are counting on continued policy support.

Based on the projected global recovery, oil prices in 2021 are expected to rise by just over 20 percent from the low base for 2020, but still well below the average for 2019. Non-oil commodity prices are also expected to increase, with metals prices in particular expected to rise sharply in 2021.

Exceptional uncertainty surrounds the baseline projection. Although new restrictions following the surge in infections (particularly in Europe) suggest that growth could be weaker than projected in early 2021, other factors are pulling the risk distribution in the opposite direction. Beyond the pandemic, the agreement reached in December on the terms of the United Kingdom’s exit from the European Union has eliminated a key downside risk, namely a “no-deal Brexit”. As an additional upside potential, the faster availability of large quantities of vaccines (especially for developing countries) could have a positive impact on development. Further mutations of the Corona virus, on the other hand, could dampen the forecast contrary to the development described.

The ongoing Corona pandemic is expected to impact the individual segments of the ATON Group to varying degrees. The pandemic has had the greatest impact in the Engineering segment and continues to have an impact there. While the Mining segment is already looking ahead with more optimism, the Med Tech segment was only marginally affected by the crisis and does not expect any significant negative impact in 2021. In the Aviation segment, we expect flight volumes and earnings to rise again from the low level in 2020. Overall, we therefore expect a slight growth in gross revenue and a significant improvement in EBIT and EAT in the ATON Group for 2021.

Management constantly monitors possible effects of the pandemic on the business and takes comprehensive measures to ensure that the protection of employees and going concern of business operations in the Group companies are guaranteed.

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 securities and bonds, amounted to EUR 727.7 million as of the end of the financial year. Including short-term loans and financial liabilities, the Group presents a net debt amounted to EUR -207.0 million. Financial liabilities of EUR 1,012.6 million include EUR 577.6 million of loans from related parties and shareholders. The loans from shareholders essentially result from the profit and loss transfer agreement with ATON 2 GmbH the associated loans granted back, which are in principle 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 2020, the Group has at its disposal EUR 361.2 million unutilised lines of credit at banks and credit insurers.

The development of liquidity and available liquid funds is monitored and managed via a weekly cash report. 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 optimised 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 interest loan liabilities. The Group addresses the risk through a mixture of fixed and variable interest rate financial liabilities. As of the end of the year, EUR 148.0 million of financial liabilities from banks were fixed-rate liabilities and EUR 34.2 million were at variable interest rates. In addition, EUR 577.6 million of fixed interest rate financial liabilities to related parties and shareholders exist as of the end of the year. The low level of variable interest rate financial liabilities in the Group limits the effects of interest rate changes.

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, forward exchange transactions 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. Nationally and internationally, subsidiaries have established credit assessment procedures. 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 are mainly equity ratios, leverage ratios and, in individual cases, interest coverage ratios. If one of the agreed thresholds of the covenants is exceeded, the lenders have a right of termination. The existing loan covenants were complied with.

As was the case at the end of 2019, there are no longer any contractual clauses in 2020 with regard to a limitation of the financial debt of the ATON Group and with regard to the financial debt of the ATON subsidiaries.

Other price risks

Another market risk is price risk, which is the risk of unfavourable changes in the prices of financial assets. Stock exchange prices or indices are particularly suitable as risk variables. At the end of the financial year 2020, the Group holds EUR 92.8 million in securities at fair value through profit or loss, which mainly consist of an actively managed portfolio of share positions and an actively managed portfolio of European corporate bonds and assets managed by Royal Bank of Canada Investment Management (UK) Limited. Since the invests are actively managed, negative developments can be counteracted in good time. The value at risk, i.e. the maximum loss in value to be expected for the actively managed portfolio of share positions of EUR 30.4 million, is EUR 12.4 million at a confidence level of 95% and an observation period of 12 months.

For further information regarding the risk report and the risk management system, please refer to chapter **36. Objectives and methods of financial risk management** in 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.

Engineering

In the segment Engineering, project risks are in the foreground. Large-scale projects in particular are usually complex and are often executed in parallel in different countries. Sometimes, the scope of the services is not finally agreed upon until the total price has been agreed. Occasionally, the scope of 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.

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

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 carried out 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, consist of a decline in commodity prices as this may cause mine operators to abandon or postpone projects and to cut back on 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.

Med Tech

The Ziehm Group develops innovative products. Naturally, there is a risk that the products will not be accepted by the market as originally planned and that the targeted expansion of market shares will not be achieved, and in the worst case even market shares will be lost. The Group counters this risk by continuously observing market and the competition, as well as through close exchange with doctors in order to understand the needs of users as best as possible.

Another risk arises from the fact that the growing internationalisation and speed of innovation in the medical technology market makes it increasingly difficult to meet all regulatory requirements. Both nationally and internationally, a large number of standards and regulations have to be considered; in case that the requirements are not complied with, this may lead to a ban on marketing the products. The Group counters this risk by continuously expanding the required internal regulatory expertise.

A fundamental risk arises from economic developments. With a downturn in economy, spending within the healthcare sector can be cut, which could have a negative impact on sales of medical technology products. However, due to the strong regulation of the medical technology markets, there may also occur fluctuations in demand that are decoupled from the rest of the economy. The Group addresses this risk through accelerated internationalisation in order to minimise dependence on individual national markets.

Aviation

The aviation industry, like few other industries, is generally suffering acute consequences from almost every unexpected crisis. The airlines are affected by a downturn in the general economic environment, commodity prices and changes in environmental regulations, as well as by political crises, sanctions or embargoes, strikes or terrorist attacks. In addition, there are technical operating risks, that may prevent flight operations from being carried out as scheduled, as well as the risk of aircraft accidents, which may result in property damage or personal injury. In order to reduce the risk of aircraft accidents caused by the human factor in particular, the legally required and additional safety training courses for pilots are carried out on a regular basis. In addition, appropriate insurance policy coverage is maintained. Internal procedural rules and the ongoing development of the internal control system through extensive internal and external quality and compliance audits ensure that risks are identified and avoided at an early stage.

In addition, events of the century, such as the current Corona pandemic, can affect traffic volumes to an unprecedented extent. In addition to the economic consequences, DC Aviation responds to special health risks of the Corona pandemic at an early stage with what it considers a unique hygiene, testing and safety concept to protect employees and passengers.

DC Aviation specialises in the management and operation of business aircrafts and in the premium charter business. Experience shows that the business aviation sector responds immediately to the economic situation. A slowdown in the economy has a direct impact on charter capacity utilisation, which for DC Aviation entails a certain but controllable risk on earnings, since in the area of aircraft management the cost risk lies with the aircraft owners. The profitability of the hangar business helps to compensate for economic fluctuations, since the compulsory maintenance intervals of the aircraft must be followed independent of economic cycles.

d) Legal risks

Following the squeeze-out of the external shareholders of W.O.M. World of Medicine AG 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 outcome of the legal dispute are currently still open. Since, contrary to our expectations, no final decision was reached in 2020, we assume that a decision will be reached in the financial year 2021.

e) IT risks

In almost all units of the ATON Group, the importance of electronically processed information and the availability of IT structures continues to increase due to the steadily growing use of IT technologies. This concerns both the frequency of virus and/or hacker attacks, for example, as well as their possible damage potential. Many companies in the ATON Group are highly dependent on functioning IT and secure data connections to customers. However, disruptions and attacks on IT systems and networks cannot be completely ruled out. An IT system breakdown or loss of data could have severe consequences. There is also a risk that strictly confidential information, especially with regard to new technological findings or partnerships in the research and development sector, could be disclosed to third parties without authorisation. This could have an adverse impact on the good position in the market; in addition, there is the possible loss of good reputation. To guarantee disruption and error free operations, the Group units attach great importance to the availability of IT resources and services. To protect confidential information, a number of security standards (such as firewall systems, virus protection, access and admission controls at operating system and application level, encryption, etc.) have been implemented, which are regularly reviewed for effectiveness by various committees in the individual Group units. The applicable IT security guidelines are continuously updated and adapted to the latest technical standards. The aim is to identify operational IT risks at an early stage and to implement appropriate concepts to prevent dangers.

f) Risks from epidemics / pandemics

Risks exist around the world from the transmission of pathogens from animals to humans, from humans to humans and by other means. Epidemics, pandemics or other spread patterns could cause high rates of disease in various countries, regions or continents. In the short, medium and long term, this can lead to a drop in demand for products and services offered. A high prevalence of sickness among employees may also endanger operations. Restrictions imposed by the authorities can also cause operational restrictions.

Specifically, the Corona crisis causes macroeconomic risks that lead, at least temporarily, to significant declines in economic growth worldwide. Such risks for the ATON Group may not only affect the development of unit sales, but may also lead to significant adverse effects on production, provision of services, the procurement markets and the supply chains.

3. Opportunities

a) Opportunities in general

The subsidiaries of the ATON Group belong, according to our own assessment, 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

Engineering

According to a recent study by IHS Markit from February 2021, global automobile production fell by 16.2 % to 74.5 million units in 2020, mainly due to the Corona crisis. The decline was evident in all regions of the world. A recovery is expected in 2021, with a global automobile production rising by 13.7 % to 84.7 million units. Worldwide in all regions, production volumes will increase, with more than half of this growth taking place in North America and Europe. This global growth trend will continue in subsequent years, so that in 2022 and 2023 production should return to the level of 2019 and thus to the level of before the Corona crisis. According to IHS Markit, however, this growth will continue to shift from the mature markets to the emerging markets in the medium and long term. The Chinese market will remain the largest production and sales market and account for over 30 % of global production volumes.

According to a publication by the German Association of the Automotive Industry (VDA) from July 2020, engineering service providers (ESP) are seen as an essential part of the automotive value chain. Before the start of the Corona pandemic, engineering service providers - despite the transformation of the entire industry - could expect a good order situation from traditional automotive manufacturers and suppliers until 2030. According to the study, the order volume for developers of vehicles and vehicle technologies will in all likelihood be significantly higher at EUR 29 billion in 2030 than in 2019 (EUR 20.5 billion). Depending on the duration of the Corona crisis, these prospects will dim at least in the short and medium term, as R&D budgets are currently being cut in many companies. Nevertheless, there is a long-term trend: ESP companies will expand their competencies and develop new cooperation models to meet the increasing demands and requirements that OEMs and mobility service providers expect from engineering service providers. In particular, perspective increases in the scope of contracts regarding the development for the volume production of vehicles and the development of new technologies - such as autonomous driving and additional software requirements in the vehicle - will create further revenue potential and thus an increase in the overall market of 40 % by 2030 compared to the pre-crisis year 2019.

EDAG considers itself well positioned in the market for engineering services for the future. Significant growth impulses will result above all from electromobility. Alongside electromobility, digitalisation is the second major future trend in the automotive industry. The aim is to develop vehicles and production systems that make optimal use of the advantages of networking. EDAG is expected to participate strongly in these positive trends. The EDAG Group is one of the leading independent engineering service providers in the automotive sector (refer to the publication of the top 50 ranking of engineering companies at springerprofessional.de). The resulting strengthened market position and the significantly expanded range of services offer opportunities to further strengthen existing customer relationships and establish new ones.

Mining

In the long term, the development of commodity prices is determined by the interaction between physical supply and demand. In the short term, many other variables, such as market sentiment or the positioning of speculative market participants, can have an impact on price developments. Since 2016, commodity prices have moved broadly volatile sideways. This trend continued in 2020, where commodity prices according to the Bloomberg Commodity Index, after a sharp drop in March 2020, were close to pre-crisis levels at year-end. In 2021, the Corona crisis should be overcome with the help of vaccines. The global economy will recover at a rapid pace from the restrictions imposed by the crisis. However, not all the production lost as a result of the Corona crisis will be made up for. This will be also reflected in the demand for raw materials. The recovery in raw material consumption will be met without strong upward pressure on prices in the forecast period, not least due to sufficiently high inventory levels. We therefore expect only a moderate upward trend in raw material prices. Cyclically sensitive sectors such as industrial metals and energy raw materials may benefit from the catch-up process in the global economy. Precious metals will be supported for the foreseeable future by the continuing expansionary monetary and fiscal policy (refer to “DEKA Macro - Research Economics Commodities” from January 2021).

In the medium to long term, we expect commodity prices to rise, which should result in a higher demand for mining contractor services. The services of the Redpath Group and the Murray & Roberts Group will be increasingly in demand, since large mine operators are expected to push ahead with their mining operations in the long term.

Med Tech

The growth in worldwide health expenditure is largely driven by population growth, the increasing ageing of society, rising prosperity (especially in Asia) and clinical and technological progress. The pressure to cut costs in the healthcare systems and increases in efficiency have the opposite effect.

The Ziehm Group essentially stands for the Med Tech segment within the ATON Group, where mobile X-ray imaging in so-called C-arms is to be regarded as the core competence. The Ziehm Group focuses on research and development, which benefits both clinical users and patients. The growth potential for the companies within ATON Group’s Med Tech segment lies primarily in the continued penetration of the core markets of Europe and North America and in continued expansion into the markets of Asia and South America. This will be made possible by the continuous advancement of technological innovations, which will ensure technological leadership.

Aviation

DC Aviation is licensed to operate an airline at three international locations. The company owns its own "AOC" (Aircraft Operating Certificate) at all three 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 under an "MRO" license (maintenance, repair, overhaul) takes place in Stuttgart and the in United Arab Emirates, in the case of Dubai in cooperation with Lufthansa Technik AG.

The second European AOC in Malta, besides the German one, offers DC Aviation the possibility to serve customers who want to register their aircraft according to the recognised high DCA standards, but not necessarily in Germany. The same applies to potential aircraft owners who prefer a new, predominantly Anglo-Saxon location after Brexit. DC Aviation has a reputation of outstanding quality and safety standards in the business aviation industry, which has been further enhanced during the current crisis. Based on this, the company's goal is to continuously expand its fleet strength by acquiring additional corporate and private customers in order to make economies of scale even more effective and to expand the range of fleet services for owners and charter customers.

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.

However, it remains to be considered that the ongoing Corona pandemic and its effects on the global economy still negatively influence the overall risk situation of the ATON Group. The overcoming of this crisis is not yet finally foreseeable, so that a final risk assessment is not possible in this respect. Due to the diversified composition of the Group and the available liquid funds, however, there should be no risks that could endanger going concern of the 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 the subsidiaries' management 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 management by the subsidiaries' management. In addition, economic, legal, technical and other risks are assessed at least every six months and discussed with ATON management.

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 bears the overall responsibility for the internal control system and risk management with regard to the group 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 results may deviate from the statements made here in the management report, particularly in view of the effects of the Corona pandemic, which cannot yet be finally assessed.

Munich, 30 April 2021

ATON GmbH
Management Board

[original German version signed by:]

Georg Denoke	Dr. Wolfgang Salzberger

ATON GmbH, Munich

CONSOLIDATED FINANCIAL STATEMENTS AS OF 31 DECEMBER 2020

(Translation – the German text is authoritative)

CONSOLIDATED INCOME STATEMENT 2020

in EUR '000	Note	2020	2019
Revenue	6	1,536,849	2,040,301
Changes in inventories and own work capitalised	7	-4,431	1,436
Other operating income	8	47,959	405,616
Cost of materials	9	-322,496	-570,568
Personnel expenses	10	-873,022	-1,025,021
Impairment losses / reversal of impairment losses on financial assets	22, 23, 24	-21,769	-8,025
Depreciation and amortisation	17, 18	-152,213	-153,004
Other operating expenses	11	-228,824	-284,007
Earnings before interest and taxes (EBIT)		**-17,947**	**406,728**
Result from investments accounted for using the equity method	12	-13,219	14,208
Other investment result	13	-36,423	-83,341
Interest income	14	3,965	4,677
Interest expense	14	-30,460	-23,128
Other financial result	15	9,030	-13
Financial result		**-67,107**	**-87,597**
Earnings before income taxes (EBT)		**-85,054**	**319,131**
Income taxes	16	-5,175	-22,994
Profit or loss for the period from continuing operations		**-90,229**	**296,137**
Profit or loss for the period (EAT)		**-90,229**	**296,137**
attributable to non-controlling interest		-16,615	372
attributable to owners of the parent		**-73,614**	**295,765**

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME 2020

in EUR '000	Note	2020	2019
Profit or loss for the period		**- 90,229**	**296,137**
attributable to non-controlling interest		- 16,615	372
attributable to owners of the parent		- 73,614	295,765
Items that may be subsequently reclassified to profit or loss			
Currency translation differences			
Gains (+) / losses (-) from currency translation differences recognised in other comprehensive income	28	- 9,146	11,337
Amount reclassified to profit or loss due to the sale of Group companies		-	3,680
Cash flow hedges			
Gains (+) / losses (-) from cash flow hedges recognised in other comprehensive income	36	-	- 6,462
Amount reclassified to profit or loss due to income statement impact of underlying transaction		-	4,148
Deferred taxes on gains / losses from cash flow hedges	16	-	694
Amount reclassified to profit or loss due to the sale of Group companies		-	3,265
Share of other comprehensive income for investments accounted for using the equity method	21	7,058	-
		- 2,088	**16,662**
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	29	- 816	- 7,149
Deferred taxes on remeasurements of defined benefit plans	16	283	1,841
Share of other comprehensive income for investments accounted for using the equity method	29	- 19	-
		- 552	**- 5,308**
Other comprehensive income before income taxes		**- 9,962**	**8,819**
Income taxes on other comprehensive income		**283**	**2,535**
Other comprehensive income, net of income taxes		**- 2,640**	**11,354**
attributable to non-controlling interest		- 273	- 1,465
attributable to owners of the parent		- 2,367	12,819
Total comprehensive income for the period		**- 92,869**	**307,491**
attributable to non-controlling interest		- 16,888	- 1,093
attributable to owners of the parent		- 75,981	308,584

CONSOLIDATED BALANCE SHEET AS OF 31.12.2020

Assets **in EUR '000**	**Note**	**31.12.2020**	**31.12.2019**
Goodwill	17	270,120	256,881
Other intangible assets	17	107,268	132,810
Property, plant and equipment	18	474,828	546,735
Reparable aircraft spare parts		412	830
Other financial assets	22	76,369	76,818
Investments accounted for using the equity method	21	129,023	164,893
Trade and other receivables	23	5,808	6,268
Deferred tax assets	16	26,518	16,168
Contract Assets	23	6,943	-
Non-current assets		**1,097,289**	**1,201,403**
Inventories	25	101,952	108,016
Trade and other receivables	23	327,395	376,738
Other financial assets	22	141,342	269,101
Income tax receivables	16	6,988	4,704
Contract assets	24	51,444	92,135
Cash and cash equivalents	26	664,253	527,886
		1,293,374	1,378,580
Assets held for sale	27	-	3,075
Current assets		**1,293,374**	**1,381,655**
Total assets		**2,390,663**	**2,583,058**

CONSOLIDATED BALANCE SHEET AS OF 31.12.2020

Equity and liabilities in EUR '000	**Note**	**31.12.2020**	**31.12.2019**
Equity attributable to owners of the parent *	28	889,820	924,583
Non-controlling interest	28	17,987	31,286
Equity	28	**907,807**	**955,869**
Provisions for pensions	29	50,075	50,188
Provisions for income taxes	30	68	47
Other provisions	30	6,142	5,993
Financial liabilities	31	341,251	350,661
Trade and other payables	32	18,946	9,915
Deferred tax liabilities	16	47,783	54,365
Contract liabilities	24	3,741	57,775
Non-current liabilities		**468,006**	**528,944**
Provisions for income taxes	30	3,018	7,673
Other provisions	30	28,983	18,847
Financial liabilities	31	671,360	785,033
Trade and other payables	31	167,380	226,374
Income tax liabilities	16	11,534	7,920
Contract liabilities	24	132,575	49,323
		1,014,850	1,095,170
Liabilities associated with assets held for sale	27	-	3,075
Current liabilities		**1,014,850**	**1,098,245**
Total equity and liabilities		**2,390,663**	**2,583,058**

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

STATEMENT OF CHANGES IN EQUITY AS OF 31.12.2020

in EUR '000	Equity attributable to owners of the parent							Non-controlling interest	Equity
				Other comprehensive income					
	Subscribed capital	Capital reserve	Retained earnings incl. profit or loss	Currency translation differences	Cash flow hedges	Remeasurements of defined benefit plans	Total		
Balance as of 1st January 2019	**15,000**	**629,168**	**533,268**	**- 38,027**	**- 1,645**	**- 2,888**	**1,134,876**	**44,030**	**1,178,906**
Restatement IFRS 16	-	-	- 50	-	-	-	- 50	11	- 39
Balance as of 1st January 2019	**15,000**	**629,168**	**533,218**	**- 38,027**	**- 1,645**	**- 2,888**	**1,134,826**	**44,041**	**1,178,867**
Equity transactions with shareholders									
Changes in the scope of consolidation	-	- 5,813	10,161	3,680	3,265	1,268	12,561	- 3,724	8,837
Acquisition of non-controlling interests	-	-	- 1,788	-	-	-	- 1,788	- 1,867	- 3,655
Profit transfer to shareholders / dividend payments	-	-	- 522,655	-	-	-	- 522,655	- 6,071	- 528,726
	-	- 5,813	- 514,282	3,680	3,265	1,268	- 511,882	- 11,662	- 523,544
Total comprehensive income for the period									
Other comprehensive income, net of income taxes 2019	-	-	-	11,479	- 1,620	- 3,985	5,874	- 1,465	4,409
Profit or loss 2019	-	-	295,765	-	-	-	295,765	372	296,137
	-	-	295,765	11,479	- 1,620	- 3,985	301,639	- 1,093	300,546
Balance as of 31 December 2019	**15,000**	**623,355**	**314,701**	**- 22,868**	**-**	**- 5,605**	**924,583**	**31,286**	**955,869**
Balance as of 1st January 2020	**15,000**	**623,355**	**314,701**	**- 22,868**	**-**	**- 5,605**	**924,583**	**31,286**	**955,869**
Equity transactions with shareholders									
Changes in the scope of consolidation	-	-	- 38	-	-	38	-	-	-
Acquisition of non-controlling interests	-	-	- 8,469	-	-	-	- 8,469	3,589	- 4,880
Profit transfer to shareholders / dividend payments	-	-	49,687	-	-	-	49,687	-	49,687
Other changes	-	-	-	-	-	-	-	-	-
	-	-	41,180	-	-	38	41,218	3,589	44,807
Total comprehensive income for the period									
Other comprehensive income, net of income taxes 2020	-	-	-	- 1,860	-	- 507	- 2,367	- 273	- 2,640
Profit or loss 2020	-	-	- 73,614	-	-	-	- 73,614	- 16,615	- 90,229
	-	-	- 73,614	- 1,860	-	- 507	- 75,981	- 16,888	- 92,869
Balance as of 31 December 2020	**15,000**	**623,355**	**282,267**	**- 24,728**	**-**	**- 6,074**	**889,820**	**17,987**	**907,807**

CONSOLIDATED STATEMENT OF CASH FLOWS 2020

in EUR '000	Note	2020	2019
Income before interest, dividends and income taxes	33	- 60,135	337,108
Income taxes paid	16	- 24,376	- 26,593
Interest paid		- 30,448	- 22,712
Interest received		3,362	4,045
Dividends received		2,015	3,666
Depreciation and amortisation / write-ups of assets		182,213	236,774
Change in provisions		10,409	720
Other non-cash transactions		23,574	- 8,156
Result from the disposal of property, plant and equipment		- 5,633	- 849
Result from the disposal of securities		- 909	- 150
Result from the disposal / deconsolidation of consolidated subsidiaries	5	15	- 348,424
Change in other assets		90,546	- 43,837
Change in other liabilities		- 21,621	637
Cash flow from operating activities		**169,012**	**132,229**
Investments in intangible assets	17	- 11,069	- 11,433
Proceeds from the disposal of intangible assets		56	114
Investments in property, plant and equipment	18	- 66,455	- 63,506
Proceeds from the disposal of property, plant and equipment		40,402	13,621
Investments in financial assets / associates		- 693,592	- 310,060
Proceeds from the disposal of financial assets		821,874	44,921
Cash outflow from the acquisition of consolidated subsidiaries	5	- 12,194	- 192
Cash inflow (previous year: cash inflow) from the disposal of consolidated subsidiaries	5	-	466,374
Cash flow from investing activities		**79,022**	**139,839**
Proceeds from shareholders		666,000	195,000
Payments to shareholders		- 696,661	- 262,117
Payments for the acquisition of non-controlling interest	28	- 4,880	- 3,655
Repayments of lease liabilities		- 46,564	- 46,772
Proceeds from bank loans		38,487	153,936
Repayments of bank loans		- 107,291	- 345,571
Cash flow from financing activities		**- 150,909**	**- 309,179**
Change in cash and cash equivalents		97,125	- 37,111
Effect of changes in exchange rates		39,242	5,688
Cash and cash equivalents at the beginning of the period		527,886	559,309
Cash and cash equivalents at the end of the period	26	**664,253**	**527,886**

Notes to the consolidated financial statements 2020

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 Engineering, Mining, Med Tech and Aviation.

The consolidated financial statements of ATON GmbH as of 31 December 2020 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, and with the interpretations of the International Financial Reporting Interpretations Committee (IFRIC), applicable on the reporting date and as adopted by the European Union.

The shares in ATON GmbH are held by ATON 2 GmbH, Munich. As the parent company of the group, this company prepares the mandatory consolidated financial statements in accordance with IFRS. These are submitted to the operator of the Electronic Federal Gazette and published.

The consolidated financial statements are prepared in Euro. Unless indicated otherwise, all amounts are rounded either up or down to the nearest k EURO in accordance with normal commercial practice. Rounding may result in 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 improve 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 considered to be current if they are due or to be sold within one year or within the normal business cycle of the company or the Group, or if they are intended to be sold. Deferred tax assets and liabilities as well as provisions for pensions are generally presented as non-current.

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 applied consistently by 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 based on 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 or 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 2020, which consist of:

- Amendments to IFRS 3 regarding the definition of a business,
- Amendments to IFRS 9, IAS 39 and IFRS 7 regarding the Interest Rate Benchmark Reform,
- Amendments to IAS 1 and IAS 8 regarding the Definition of Materiality,
- Amendments to References to the Conceptual Framework in IFRS Standards and
- Amendment to IFRS 16 regarding Covid 19-related Rent Concession in Leases (effective for periods beginning on or after 1 June 2020 with earlier application permitted).

None of those applied standards had a material effect on the consolidated financial statements.

The Group has not early adopted any other standard, interpretation or amendment that has been issued but is not yet effective.

New or amended standards and interpretations not applied

Standards/ amendments		EU Endorsement	Mandatory application*1)	Expected effect
Amendments to IFRS 9, IAS 39, IFRS 4, IFRS 7 and IFRS 16	Interest Rate Benchmark Reform - Phase 2	Yes	01.01.2021	No material effects
Amendments to IFRS 4	Deferral of Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts	Yes	01.01.2021	No effects
Amendments to IAS 37	Onerous Contracts – Cost of Fulfilling a Contract	No	01.01.2022	No material effects
Amendments to IAS 16	Property, Plant and Equipment: Proceeds before Intended Use	No	01.01.2022	No material effects
Amendments to IFRS 3	Updating the Reference to the Conceptual Framework	No	01.01.2022	No material effects
	Annual Improvements 2018 - 2020 regarding IFRS 1, IFRS 9, IFRS 16 and IAS 41	No	01.01.2022	No material effects
Amendments to IAS 1	Classification of Liabilities as Current or Non-current	No	01.01.2023	No material effects

* Mandatory application 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.

2.3. 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.

Acquired subsidiaries are accounted for using the acquisition method. The cost of a business acquisition is measured according to the fair value of the assets acquired and the liabilities incurred 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 interests in equity. Non-controlling interests are measured either at fair value (full goodwill method) or at the 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 interests.

Any contingent consideration to be transferred by the Group is recognised at fair value at the acquisition date. Subsequent changes in the fair value of the contingent consideration that is classified an asset or liability are measured and any resulting gain 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 fixed assets and in inventories arising from intra-group transactions are eliminated. Consolidation entries with effect on profit or loss are subject to deferred taxes.

Transactions with non-controlling interests that do not result in loss of control are accounted for as transactions with equity of the Group. Any difference arising on the acquisition of non-controlling interests between the consideration paid and the relevant share acquired of the carrying amount of net assets is recorded directly within equity. Gains or losses on disposals to non-controlling interests are also recorded in equity.

When the Group loses control over an entity, any retained interest is remeasured to its fair value and the resulting difference is recognised in profit or loss. The fair value is the fair value determined at initial recognition 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 and liabilities. This means 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 costs at the time of acquiring the shares in an associate, the relevant book value of the participation is increased or reduced annually to take account of the proportional profits or losses, reduced by dividends paid to the ATON Group as well as by changes in other comprehensive income of the associate, insofar as these are attributable to the ATON Group. Goodwill arising from the acquisition of an associate is included in the carrying amount 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 gains and losses resulting from transactions of Group companies with associates are eliminated proportionally in the income of the Group.

The Group assesses at each reporting date whether there is any indication that an investment accounting for using the equity method may be impaired. If such evidence exists, the ATON Group determines the impairment requirement as the difference between the carrying amount and the recoverable amount.

Joint arrangements

According to IFRS 11, there are two forms of joint arrangements, depending on the contractual rights and obligations: joint operations and joint ventures. The ATON Group has assessed the nature of its joint arrangements and identified them as joint ventures. Joint ventures are accounted for using the equity method. For information on accounting for companies using the equity method, please refer to the explanations for associated companies.

As of 31 December 2020, the scope of consolidation is as follows:

	Germany	International	Total	31.12.2019
Fully consolidated companies	36	47	83	87
Associates	1	3	4	3
Joint ventures	17	7	24	21
Fully consolidated companies (at fair value)	3	4	7	7
Companies within the scope of consolidation	**57**	**61**	**118**	**118**

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 considered to be of minor significance if their cumulative share of net sales, annual results and total assets amounts to less than 1 % of consolidated net sales, 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 fulfilled 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:

Name of company	Registered office
EDAG Production Solutions 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 individual 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 stated in a foreign currency are translated at the closing rate. Non-monetary assets and liabilities measured at fair value and whose amount is stated 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. Those changes in 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 from the translation at closing rates are reported separately in equity and 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 foreign currencies financial statements have developed in relation to the Euro as follows (in each case for 1 EUR):

Country	Currency		2020		2019	
	Units per Euro		Closing rate	Average rate	Closing rate	Average rate
Australia	Dollar	AUD	1.5896	1.6549	1.5995	1.6109
Brazil	Real	BRL	6.3735	5.8943	4.5157	4.4134
China	Renminbi	CNY	8.0225	7.8747	7.8205	7.7355
United Kingdom	Pound	GBP	0.8990	0.8897	0.8508	0.8778
India	Rupee	INR	89.6605	84.6392	80.1870	78.8361
Japan	Yen	JPY	126.4900	121.8500	121.9400	122.0100
Canada	Dollar	CAD	1.5633	1.5300	1.4598	1.4855
Korea	Won	KRW	1,336.0000	1,345.5800	1,296.2800	1,305.3200
Malaysia	Ringgit	MYR	4.9340	4.7959	4.5953	4.6374
Mexico	Peso	MXN	24.4160	24.5194	21.2202	21.5565
Namibia	Dollar	NAD	17.9813	18.7577	15.7328	16.1519
Norway	Krone	NOK	10.4703	10.7228	9.8638	9.8511
Poland	Zloty	PLN	4.5597	4.4430	4.2568	4.2976
Romania	Leu	RON	4.8683	4.8383	4.7830	4.7453
Russian Federation	Rouble	RUB	91.4671	82.7248	69.9563	72.4553
Zambia	Kwacha	ZMW	25.9103	20.8323	15.5485	14.4124
Sweden	Krona	SEK	10.0343	10.4848	10.4468	10.5891
Switzerland	Franc	CHF	1.0802	1.0705	1.0854	1.1124
Singapore	Dollar	SGD	1.6218	1.5742	1.5111	1.5273
South Africa	Rand	ZAR	18.0219	18.7655	15.7773	16.1757
Czech Republic	Koruna	CZK	26.2420	26.4550	25.4080	25.6700
Hungary	Forint	HUF	363.8900	351.2500	330.5300	325.3000
USA	Dollar	USD	1.2271	1.1422	1.1234	1.1195

3. Summary of significant accounting policies

3.1. Goodwill

Goodwill is not subject to scheduled amortisation 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 recognised at purchase cost at the date of acquisition and subsequently measured at its purchase cost less any 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 first to 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 based on 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 5.0 % and 8.1 % (previous year: 4.1 % 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 three and ten 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 to complete 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 generally between 50 and 60 years. Unchanged to prior year as of 31 December 2020 no investment properties exist.

3.7. Leases

The ATON Group applies the provisions of IFRS 16 "Leases" since 1 January 2019 (previously accounting under IAS 17). The standard contains a comprehensive model for identifying lease agreements and accounting for lessors and lessees. The provisions of IFRS 16 were 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.

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 made 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 as lessee

Lessees recognize a right-of-use for a leased asset (so-called right-of-use asset or RoU 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.

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.

For leases classified as **finance leases** under IAS 17 as of 31 December 2018, the carrying amount of the right-of-use asset and lease liability remained 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 as of 31 December 2018, the Group 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 is 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.

The Group as a lessor

The lessor distinguishes between finance and operating leases. Leases under which substantially all the risks and rewards 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.

For subleases, the interim lessor classifies 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 sub-lease rather than the underlying leased asset by the principal lessor.

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

Classification and measurement

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.

Financial assets are 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 purchases and sales of financial assets at-arms-lengths are recognised at the trading day, i.e. at the date on which the Group entered into the obligation to purchase or sell the asset.

Impairment

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 is not required.

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 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.

3.12. Financial liabilities

Classification and measurement (without impairment) – financial liabilities

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

Financial liabilities are measured at fair value on initial recognition. 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.

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.

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 relevant accounting standard IFRS 15 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 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 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 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 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 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 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 revenue is realised monthly at the invoiced amount.

3.18. Contract assets / Contract liabilities

If a performance obligation has been fulfilled and a receivable has not yet arisen, a contract asset must be recognized. Contract assets are subject to the IFRS 9 impairment provisions explained in note **3.11. Financial assets**.

A contract liability is recorded when the customer pays consideration or the Group has an unconditional right to an amount of consideration (whichever is earlier) before the Group transfers the corresponding goods or services to the customer. Contract liabilities are recognised as revenue as soon as the Group fulfils its contractual obligations (i.e. as soon as it transfers control of the goods or services to the customer).

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 providing 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.

In addition, deferred tax assets are recognised for the carry forward of unused tax losses or unused tax credits to the extent that it is probable that future taxable profit will be available against which the unused tax losses and unused tax credits can be utilised.

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 obligations satisfied over time in accordance with IFRS 15

For some companies, in particular within the EDAG Group and the Redpath Group, revenue is recognised for huge portion of the business on a time-related basis. In the construction projects business, revenue is often recognised over 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 **3.11 Financial assets**).

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 **29. 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 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 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

Rights of use and obligations arising from leases are initially measured at the present value of the future lease payments. The determination of the fair value is regularly associated with estimates regarding the cash flows from the use of the leased asset and the discount rate used. To determine the present value of the minimum lease payments, the interest rate underlying the lease or, if not determinable, the incremental borrowing rate is used. The exercise of possible extension and termination options must also be assessed.

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.

Impact of the Corona pandemic

Due to the global consequences of the Corona pandemic, which are still not finally foreseeable, the above estimates and judgments are subject to increased uncertainty. The actual amounts realized may differ from these estimates and judgments. Changes may have a material impact on the consolidated financial statements.

In updating these estimates and judgements, all available information concerning expected future economic developments and country-specific government measures were taken into account.

This information was included in the impairment tests for financial assets (see chapter **22. Other financial assets** and note **23. Trade and other receivables**) and for financial investments accounted for using the equity method (see note **13. Other investment result**). In addition, impairment tests were performed for cash-generating units (see note **17. Goodwill and other intangible assets**), which confirmed the recoverability of the respective underlying carrying amounts.

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:

With effect from 1 January 2020, EDAG Production Solutions, Inc., Troy, USA, was merged with EDAG, Inc., Troy / USA. This intragroup transaction had no effect on the consolidated financial statements.

With effect from 1 January 2020, Müller HRM Engineering AB, Gothenburg / Sweden, was merged with EDAG Engineering Scandinavia AB, Gothenburg / Sweden. This intragroup transaction had no effect on the consolidated financial statements.

The ARGE Errichtung Schachtförderanlage Konrad 2, Mühlheim an der Ruhr, was founded as a joint venture on 27 February 2020. 50.0 % of the shares are held via Redpath Group.

The Joint Venture Freezing Comol-5, Dortmund, was founded as a joint venture on 10 March 2020. 60.0 % of the shares are held via Redpath Group.

AspiAir US, Inc., Wilmington / Delaware, was founded on 16 March 2020 as a wholly owned subsidiary of AspiAir GmbH, Munich. For reasons of materiality, the company has not yet been fully consolidated. The shares are accounted for at fair value.

Rücker Vehicle Designs (Shanghai) Co. Ltd., Shanghai / China, was dissolved with effect from 16 April 2020.

The ARGE Wasseraufbereitung Reden 4/5, Saarbrücken, was founded as a joint venture on 15 May 2020. 40.0 % of the shares are held via Redpath Group.

ATM Holding GmbH, Munich, was merged with ATON GmbH, Munich, retrospectively effective as of 1 January 2020 due to the merger agreement signed on 19 May 2020. This intragroup transaction had no effect on the consolidated financial statements.

EDAG Turkey Mühendislik Limited, Gebze/Kocaeli / Turkey, was founded with the registration as of 28 May 2020.

With effect from 17 July 2020, Ziehm Imaging GmbH acquired 100 % of the shares in Therenva SAS, Rennes / France and Therenva SAS is fully consolidated since then. The company is active in the development and production of navigation solutions for endovascular medical examinations and surgery planning software. The acquisition complements the Ziehm Group's product portfolio and increases process efficiency in the OR through the extended integration of hardware and software.

The following table shows the assets and liabilities identified at the time of acquisition at their carrying amounts and fair values:

in EUR '000	**IFRS carrying amounts at date of acquisition**	**Purchase price allocation**	**Fair values at date of acquisition**
Intangible assets	84	1,822	1,906
Property, plant and equipment	59	-	59
Non-current assets	**143**	**1,822**	**1,965**
Inventories	50	-	50
Trade and other receivables	463	-	463
Other financial assets	200	-	200
Income tax receivables	496	-	496
Cash and cash equivalents	3,113	-	3,113
Current assets	**4,322**	**-**	**4,322**
Total assets	**4,465**	**1,822**	**6,287**
Financial liabilities	1,403	-	1,403
Trade and other liabilities	876	-	876
Deferred tax liabilities	-	510	510
Income tax liabilities	2	-	2
Total liabilities	**2,281**	**510**	**2,791**
Net assets acquired	**2,184**	**1,312**	**3,496**

Since the initial consolidation, Therenva SAS has contributed net sales of EUR 896k and a net profit of EUR 90k to the Group.

The following non-tax-deductible goodwill results from the acquisition of the company:

in EUR '000	2020
Fair value of the purchase price for the net assets	21,786
Net assets at book value	2,184
Difference	**19,602**
Adjustment to fair values	
Software	1,822
Deferred tax liabilities	-510
Goodwill	**18,290**

The purchase price and the resulting goodwill at Group level are mainly the result of expected synergies and the development know-how of the employees. EUR 6,479k of the purchase price presented are dependent on reaching certain conditions (R&D milestones, revenues and earnings targets) and are expected to be due in 2022 and 2023. The present value of the obligation is recognised under other liabilities, as it is assumed that the relevant parameters for the contingent consideration will be achieved.

As part of the share buyback program announced on 7 August 2019, a total of one million shares were acquired between 8 August 2019 and 31 July 2020. As a result, the shareholding ratio rose from 72.12 % at previous year's reporting date to 74.66 %. Differences between the net assets acquired from non-controlling interests and the purchase price paid were recognised directly in equity.

Based on the share purchase agreement dated 12 August 2020, the shares in REFORM Maschinenfabrik Adolf Rabenseifner GmbH & Co. KG, Fulda, and the associated general partner company REFORM GmbH, Fulda, were sold at a selling price of EUR 1. The sale of REFORM Maschinenfabrik Adolf Rabenseifner GmbH & Co. KG was already considered highly probable as of the previous year's reporting date, so that the assets (EUR 3,075k) and liabilities (EUR 3,075k) were already reported as held for sale in the previous year in accordance with IFRS 5 and the associated net assets were measured at the selling price of EUR 1. Thus, the sale in 2020 (closing date on 8 September 2020) had no effect on earnings in the present consolidated financial statements.

With the participation agreement dated 13 August 2020, ATON GmbH acquired an interest of EUR 500k or 25.15 % in ecoCOAT GmbH, Allershausen, as part of a capital increase. Since then, the company is accounted for using the equity method.

On 21 September 2020, Redpath Deilmann UK Limited, Birmingham / Great Britain, was founded as a wholly owned subsidiary of the Redpath Group and is consolidated since then.

In October 2020, the non-controlling interest in Redpath Rig Resources JV Limited, Kitwe / Zambia was acquired for a purchase price of EUR 82k. This increased the shareholding of the already fully consolidated company from 70.0% to 100.0%. Differences between the net assets acquired from non-controlling interests and the purchase price paid were recognised directly in equity.

On 4 December 2020, Eroc Malaysia Sdn. Bhd, Kuala Lumpur / Malaysia was dissolved.

With regard to the changes in the scope of consolidation in the comparative previous year's period, please refer to the previous year's consolidated 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	**Engineering**	**Mining**	**Med Tech**	**Aviation**	**Holding / Consolidation**	**ATON Group**
Geographical area						
Germany	398,266	15,578	37,146	40,377	537	491,904
North America	34,802	202,945	58,972	1,063	-	297,782
Europe (excluding Germany)	123,028	76,816	48,396	18,980	-	267,220
Asia	90,088	136,820	29,254	1,911	-	258,073
Australia	3,953	157,256	1,707	-	-	162,916
Africa	16	41,512	4,288	1,359	-	47,175
South America	3,298	7,008	1,473	-	-	11,779
Total revenue	**653,451**	**637,935**	**181,236**	**63,690**	**537**	**1,536,849**
Type of revenues						
Revenue from rendering of services	653,451	633,972	19,987	63,690	379	1,371,479
Revenue from sales of goods	-	3,963	160,765	-	30	164,758
Other operating revenue	-	-	484	-	128	612
Total revenue	**653,451**	**637,935**	**181,236**	**63,690**	**537**	**1,536,849**
Revenue recognition						
Over a period of time	606,283	637,935	13,231	63,690	-	1,321,139
At a point in time	47,168	-	168,005	-	537	215,710
Total revenue	**653,451**	**637,935**	**181,236**	**63,690**	**537**	**1,536,849**

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

	Business segments					Total
in EUR '000	**Engineering**	**Mining**	**Med Tech**	**Aviation**	**Holding / Consolidation**	**ATON Group**
Geographical area						
Germany	662,792	18,783	39,213	50,090	- 15	770,863
North America	94,796	215,548	58,134	377	-	368,855
Asia	142,591	184,852	26,626	2,104	-	356,173
Europe (excluding Germany)	147,645	67,980	46,575	19,211	-	281,411
Australia	2,827	160,321	2,087	-	-	165,235
Africa	2,856	68,501	2,550	1,535	-	75,442
South America	9,160	9,514	3,648	-	-	22,322
Total revenue	**1,062,667**	**725,499**	**178,833**	**73,317**	**- 15**	**2,040,301**
Type of revenues						
Revenue from rendering of services	1,062,667	720,641	17,983	73,317	-	1,874,608
Revenue from sales of goods	-	4,735	160,249	-	- 15	164,969
Other operating revenue	-	123	601	-	-	724
Total revenue	**1,062,667**	**725,499**	**178,833**	**73,317**	**- 15**	**2,040,301**
Revenue recognition						
Over a period of time	983,627	725,060	7,803	73,317	-	1,789,807
At a point in time	79,040	439	171,030	-	- 15	250,494
Total revenue	**1,062,667**	**725,499**	**178,833**	**73,317**	**- 15**	**2,040,301**

7. Changes in inventories and own work capitalised

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

in EUR '000	2020	2019
Changes in inventories of goods and services	-9,081	-2,272
Own work capitalised	4,650	3,708
Changes in inventories and own work capitalised	**-4,431**	**1,436**

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

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

Own work capitalised in the reporting period contains mainly own work of the Ziehm Group amounting to EUR 4,467k (previous year: EUR 3,250k).

8. Other operating income

The other operating income comprises the following:

in EUR '000	2020	2019
Operating income		
Government grants	17,224	4,079
Monetary advantage company cars	5,015	5,284
Miscellaneous operating income	4,166	4,016
Income from subleases	1,528	2,074
Income from external services and cost transfers third parties	921	286
Rental and lease income	508	1,551
Income from insurance compensation payments	414	619
Income from catering / canteen	95	206
Income from compensation and agreements for terminating contracts	86	375
Income from cost reimbursements	79	25
Income from recycling / scrap disposal	43	240
Operating income	**30,079**	**18,755**
Non-operating income		
Income from the disposal and write-ups of intangible assets and property, plant and equipment	7,880	1,706
Currency translation gains	5,263	25,084
Income from the reversal of provisions / derecognition of liabilities	3,193	8,394
Miscellaneous non-operating income	1,442	619
Income from other periods	73	2,462
Income from hedging transactions	17	105
Income from the disposal / deconsolidation of consolidated companies	12	348,424
Income from the disposal and write-ups of current assets	0	67
Non-operating income	**17,880**	**386,861**
Other operating income	**47,959**	**405,616**

The decrease in other operating income is mainly due to income from disposal / deconsolidation of consolidated companies. In the previous year, the income of EUR 348,424k resulted from the deconsolidation of the FFT Group in May 2019.

Currency translation gains decreased, in particular due to lower income in the segments Holding / Consolidation and Mining.

The line item “government grants” mainly includes grants from public authorities. The increase in financial year 2020 is almost entirely due to Redpath, which received subsidies from the Canadian government due to the Corona crisis.

The increase in income from the disposal and write-ups of intangible assets and property, plant and equipment primarily results from the segment Mining.

The income from the reversal of provisions has decreased. In the previous year, this line item included a higher income from the reversal of provisions in the segment Holding / Consolidation (previous year: EUR 3,000k) as well as income from the FFT Group, which was deconsolidated in May 2019.

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	2020	2019
Cost of raw materials, consumables and supplies and of purchased merchandise	200,106	359,516
Cost of purchased services	122,390	211,052
Cost of materials	**322,496**	**570,568**

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

in EUR '000	2020	2019
Engineering	38,904	164,661
Mining	87,368	109,511
Med Tech	66,376	74,156
Aviation	5,939	7,820
Holding/Consolidation	1,519	3,368
Cost of raw materials, consumables and supplies and of purchased merchandise	**200,106**	**359,516**

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	2020	2019
Engineering	40,805	130,839
Mining	45,946	38,610
Med Tech	3,617	3,923
Aviation	32,099	37,762
Holding/Consolidation	- 77	- 82
Cost of purchased services	**122,390**	**211,052**

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	2020	2019
Wages and salaries	738,562	859,274
Expenses for social security, retirement and other employee benefit expenses	134,460	165,747
Personnel expenses	**873,022**	**1,025,021**

The expenses for retirement include, among other things, the cost of defined benefit pension commitments. 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 refer to note **29. Provisions for pensions**.

Personnel expenses include EUR 14,385k of government grants, mainly in Germany, for short-working compensation including social security contributions (previous year: EUR 1,103k), which are netted within personnel expenses.

In addition, government wage subsidies amounting to EUR 14,017k (previous year: EUR 0k) were granted in other countries, which are reported under other operating income.

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	2020	2019
Industrial workers	3,929	4,645
Salaried staff	10,259	11,946
Total employees excluding trainees	**14,188**	**16,591**
Trainees	428	739

11. Other operating expenses

The other operating expenses comprise the following:

in EUR '000	2020	2019
Operating expenses		
Administration costs	39,322	40,489
Travelling expenses	29,139	53,424
Maintenance	26,428	29,546
Expenses from additions to provisions	17,694	15,220
Legal and consulting costs, audit costs	17,391	20,702
Other expenses for leasing contracts	12,948	12,895
Selling and marketing costs	10,875	19,542
Miscellaneous operating expenses	9,423	8,718
Other incidental personnel expenses	7,880	12,224
Other taxes and levies	7,718	6,132
Leasing expenses from short-term leases	5,259	8,795
Insurances	5,034	4,988
Education and training costs	4,890	7,643
Leasing expenses from low-value leases	3,687	3,602
Research and development costs	1,806	576
Incidental costs of monetary transactions	993	223
Incidental rental costs and cleaning expenses	962	943
Car expenses	691	3,115
Expenses from security services	522	2,027
Non-deductible input tax	235	369
Variable leasing expenses (not included in lease liabilities)	165	381
Expenses from cost transfers third parties	66	3,157
Operating expenses	**203,128**	**254,711**
Non-operating expenses		
Currency translation losses	21,709	25,104
Expenses from the disposal of property, plant and equipment	2,247	857
Expense from hedging transactions	1,211	890
Miscellaneous non-operating expenses	303	2,349
Expenses from other periods	199	96
Expenses from the disposal of consolidated companies	27	0
Non-operating expenses	**25,696**	**29,296**
Other operating expenses	**228,824**	**284,007**

In addition to the disposal of the FFT Group at the end of May 2019, the decline in other operating expenses is mainly due to lower travel expenses as a result of the Corona pandemic. Selling and marketing costs have also decreased due to the Corona pandemic.

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 -13,219k (previous year: EUR 14,208k). For further information please refer to note **21. Investments accounted for using the equity method**.

13. Other investment result

The other investment result is composed as follows:

in EUR '000	2020	2019
Expenses from the impairment of investments	- 83,480	- 84,757
Result from the revaluation / sale of investments	47,057	1,416
Other investment result	**- 36,423**	**- 83,341**

The net amount from expenses from impairment and revaluation results from the valuation of the investment in Murray & Roberts at the stock market price on the balance sheet date. During the Corona pandemic, stock market prices fell sharply, particularly in emerging markets, during the first half year, although they recovered somewhat towards the end of the year. As we, as a minority shareholder, do not have any multi-year planning for a valuation of the investment, e.g. according to the discounted cash flow method, the stock market price as of balance sheet date was used as the best estimate for the fair value.

In the previous year, the valuation of the investment in Murray & Roberts at the stock market price was also the reason for the expenses from the impairment of investments. This was offset by a gain on disposal from the sale of DCA Switzerland AG.

14. Net interest result

The net interest expenses comprise the following:

in EUR '000	2020	2019
Interest income		
Interest income from credit institutions	1,281	2,946
Interest and similar income from related parties	2,384	1,194
Other interest income	300	537
	3,965	**4,677**
Interest expenses		
Interest expenses to credit institutions and bondholders	6,056	9,098
Interest expenses from lease agreements	5,443	6,436
Net interest expenses from defined benefit pension plans	498	861
Interest and similar expenses to related parties or shareholder	16,440	3,429
Other interest expenses	2,023	3,304
	30,460	**23,128**
Net interest result	**- 26,495**	**- 18,451**

Interest and similar expenses to related parties or shareholder result mainly from loans granted by ATON 2 GmbH.

15. Other financial result

The other financial result comprises the following:

in EUR '000	2020	2019
Other financial income		
Gains from fair value measurement	10,462	1,881
Interest and dividend income from securities	2,057	872
Income from sale of securities	1,014	150
Other financial income	93	35
	13,626	**2,938**
Other financial expenses		
Losses from fair value measurement	4,441	2,889
Losses from sale of securities	105	1
Other financial expenses	50	61
	4,596	**2,951**
Other financial result	**9,030**	**- 13**

16. Income taxes

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

The income taxes for the financial years 2020 and 2019 break down as follows:

in EUR '000	2020	2019
Income taxes		
Income taxes for the current year	27,866	43,143
Income taxes for previous years	- 1,507	- 1,020
Income from the reversal of provisions for income taxes	- 191	- 20
	26,168	**42,103**
Deferred taxes		
Deferred taxes from temporary differences	- 17,064	- 18,260
Deferred taxes on losses carried forward	- 3,929	- 849
	- 20,993	**- 19,109**
Income taxes	**5,175**	**22,994**

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 then 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 still 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 respective regulation of national tax law and using the country-specific tax rate. Tax rates applied by the foreign companies vary, as in previous year, between 5.5 % and 35.0 %.

The income taxes of the reporting period amounting to EUR 5,175k (previous year: EUR 22,994k) 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):

	2020		2019	
	EUR '000	in %	EUR '000	in %
Earnings before income taxes (EBT)	**- 85,054**		**319,131**	
Income tax rate of the parent		32.98%		32.98%
Expected income tax expense	**- 28,051**		**105,233**	
Tax-free income and non-deductible expenses, incl. the effect of sections 8a / 8b of the KStG (corporate tax law)	20,111	-23.64%	- 97,503	-30.55%
Income taxes for previous years	- 1,624	1.91%	- 404	-0.13%
Tax rate variances	- 3,121	3.67%	3,853	1.21%
Amount of tax losses carried forward and other deferred tax assets not recognised or impaired	14,067	-16.54%	6,439	2.02%
Effects from the recognition of previously unused tax loss carry forwards	2,419	-2.84%	1,868	0.59%
Non-deductible withholding taxes	1,475	-1.73%	3,965	1.24%
Other tax effects	- 101	0.12%	- 457	-0.14%
Income taxes reported in the consolidated income statement	**5,175**		**22,994**	
Effective tax rate		**-6.09%**		**7.21%**

The item "Tax-free income and non-deductible expenses, incl. the effect of sections 8a / 8b of the KStG (corporate tax law)" in the current year mainly relates to non-taxable impairments on shareholdings (primarily Murray & Roberts) and effects from the loss compensation between ATON GmbH and ATON 2 GmbH.

In the previous year, the tax-free income resulted primarily from the sale of subsidiaries (mainly the FFT Group).

Current and deferred taxes are composed as follows:

in EUR '000	**31.12.2020**	**31.12.2019**
Current income taxes in the consolidated income statement		
Income tax assets	6,988	4,704
Income tax liabilities	- 11,534	- 7,920
Provisions for income taxes	- 3,086	- 7,720
	- 7,632	**- 10,936**
Deferred taxes in the consolidated income statement		
Deferred tax assets	26,518	16,168
Deferred tax liabilities	- 47,783	- 54,365
	- 21,265	**- 38,197**
Income taxes in the consolidated income statement	**- 28,897**	**- 49,133**

The deferred tax assets and liabilities are attributable to the following items of the consolidated balance sheet:

in EUR '000	31.12.2020	31.12.2019
Deferred tax assets		
Intangible assets	78	321
Property, plant and equipment	500	686
Financial assets	88	232
Inventories	5,812	7,945
Receivables and other assets	13,555	4,548
Provisions for pensions	9,521	8,863
Other provisions	4,787	2,918
Other liabilities	81,876	85,228
Losses carried forward	19,372	16,330
Netting	- 109,071	- 110,903
	26,518	**16,168**
of which: non-current before netting	**29,559**	**26,432**
Deferred tax liabilities		
Intangible assets	30,475	39,123
Property, plant and equipment	75,652	72,165
Financial assets	206	310
Inventories	2	43
Receivables and other assets	39,052	39,319
Other provisions	10,734	13,469
Other liabilities	733	839
Netting	- 109,071	- 110,903
	47,783	**54,365**
of which: non-current before netting	**106,333**	**111,598**
Deferred taxes, net	**- 21,265**	**- 38,197**

The deferred taxes changed as follows:

in EUR '000	2020	2019
Deferred taxes at the beginning of the financial year	- 38,197	- 60,137
Changes in the scope of consolidation	- 510	1,142
Recognised in profit or loss	20,993	19,109
Recognised directly in equity	- 283	2,535
Currency translation differences	- 3,268	- 1,903
Reclassification IFRS 5	-	1,057
Deferred taxes at the end of the financial year	**- 21,265**	**- 38,197**

The changes in the scope of consolidation in the current year in the amount of EUR -510k relate to the acquisition of Therenva SAS. The changes in the scope of consolidation in the previous year in the amount of EUR 1,142k related to the deconsolidation of the FFT Group. The reclassification according to IFRS 5 in previous year related exclusively to REFORM.

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	**2020**	**2019**
Losses carried forward (total)		
Losses carried forward expire within		
1 year	10,894	16,789
2 to 5 years	42,613	34,644
over 5 years	25,769	26,492
carried forward indefinitely	115,544	110,652
	194,820	**188,577**
Losses carried forward (not usable)		
Losses carried forward expire within		
1 year	486	-
2 to 5 years	9,157	658
over 5 years	23,225	23,108
carried forward indefinitely	115,544	110,652
	148,412	**134,418**
Expected use of usable tax losses carried forward		
1 year	10,408	16,789
2 to 5 years	33,456	33,986
over 5 years	2,544	3,384
	46,408	**54,159**

As of 31 December 2020, trade tax losses carried forward amount to EUR 106,313k (previous year: EUR 95,263k), on which no deferred tax assets were recognised in the amount of EUR 68,551k (previous year: EUR 69,370k).

17. 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 2020	**263,270**	20,373	292,773	1,098	**314,244**
Changes in the scope of consolidation	**18,290**	18	1,832	56	**1,906**
Additions	**0**	3,805	4,570	2,380	**10,755**
Disposals	**-6,389**	0	-35,392	0	**-35,392**
Reclassifications	**0**	2,446	725	-538	**2,633**
Currency translation differences	**-5,051**	-261	-1,254	-1	**-1,516**
As of 31 December 2020	**270,120**	**26,381**	**263,254**	**2,995**	**292,630**
Accumulated depreciation, amortisation and impairment losses					
As of 1 January 2020	**6,389**	10,017	171,417	0	**181,434**
Changes in the scope of consolidation	**0**	0	0	0	**0**
Depreciation, amortisation and impairment 2020	**0**	2,704	35,423	0	**38,127**
Depreciation and amortisation	**0**	2,497	35,403	0	**37,900**
Impairment	**0**	207	20	0	**227**
Disposals	**-6,389**	0	-35,336	0	**-35,336**
Reclassifications	**0**	2,439	-120	0	**2,319**
Currency translation differences	**0**	-145	-1,037	0	**-1,182**
As of 31 December 2020	**0**	**15,015**	**170,347**	**0**	**185,362**
Carrying amounts					
As of 1 January 2020	256,881	10,356	121,356	1,098	132,810
As of 31 December 2020	270,120	11,366	92,907	2,995	107,268

The development of goodwill and other intangible assets was 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 2019	**275,858**	16,627	300,612	664	**317,903**
Changes in the scope of consolidation	**- 15,399**	22	- 12,018	-	**- 11,996**
Additions	**-**	2,192	6,985	568	**9,745**
Disposals	**-**	0	- 2,207	-	**- 2,207**
Reclassifications	**-**	1,530	292	- 134	**1,688**
Reclassifications in accordance IFRS 5	**-**	-	- 1,833	-	**- 1,833**
Currency translation differences	**2,811**	2	942	-	**944**
As of 31 December 2019	**263,270**	**20,373**	**292,773**	**1,098**	**314,244**
Accumulated depreciation, amortisation and impairment losses					
As of 1 January 2019	**6,389**	7,089	145,579	-	**152,668**
Changes in the scope of consolidation	**-**	22	- 7,264	-	**- 7,242**
Depreciation, amortisation and impairment 2019	**-**	2,898	36,230	-	**39,128**
Depreciation and amortisation	**-**	2,898	36,230	-	**39,128**
Impairment	**-**	-	-	-	**-**
Disposals	**-**	0	- 2,093	-	**- 2,093**
Reclassifications	**-**	-	-	-	**-**
Reclassifications in accordance IFRS 5	**-**	-	- 1,833	-	**- 1,833**
Currency translation differences	**-**	8	798	-	**806**
As of 31 December 2019	**6,389**	**10,017**	**171,417**	**-**	**181,434**
Carrying amounts					
As of 1 January 2019	269,469	9,538	155,033	664	165,235
As of 31 December 2019	256,881	10,356	121,356	1,098	132,810

The changes in the scope of consolidation for the acquired goodwill and other intangible assts reflect the acquisition of Therenva SAS with effect from 17 July 2020. In the previous year, the changes in the scope of consolidation for the acquired goodwill, reflected the disposal of the goodwill of the FFT Group with its sale with effect from 29 May 2019 (EUR -15,443k). This was offset by the addition of acquired goodwill from a newly acquired company within the Ziehm Group as of 30 October 2019 (EUR 44k).

Capitalised development costs relate to various smaller amounts for intangible assets internally generated in various subsidiaries. In addition to the capitalised development costs, research and development costs of EUR 10,526k (previous year: EUR 12,713k) were recognised as expenses.

The addition to other acquired intangible assets from changes in the scope of consolidation in the financial year 2020 results from the newly acquired Therenva SAS by the Ziehm Group.

No borrowing costs were capitalised in the financial year.

The purchase commitments for intangible assets amounted to EUR 243k as of 31 December 2020 (previous year: EUR 4,268k).

As in the previous year, there are no restrictions on ownership of the intangible assets. Intangible assets do not include any assets acquired as leases.

No government grants were deducted directly from the acquisition / production costs of intangible assets in the financial year 2020 (previous year: EUR 0k).

Government grants in the amount of EUR 3,489k (previous year: EUR 2,820k) were recognised in the income statement of the financial year 2020.

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

in EUR '000	**31.12.2020**	**31.12.2019**
EDAG	165,923	166,032
Goodwill Engineering	**165,923**	**166,032**
Goodwill Mining	**40,479**	**45,422**
Ziehm/OrthoScan	63,718	45,427
Goodwill Med Tech	**63,718**	**45,427**
Goodwill	**270,120**	**256,881**

The Group tests its goodwill for impairment at least once a year. As of 31 December 2020, all goodwill items were subject to an impairment test conducted as presented in note **3.1 Goodwill** in which the carrying amount is compared with the value in use as recoverable amount. The value in use is determined using the discounted cash flow method based on a 3-year planning period. For the financial year 2020, as in previous year, there is no impairment.

The changes in the segments Engineering and Mining result exclusively from exchange rate effects.

The increase in the segment Med Tech results from the acquisition of Therenva SAS, Rennes / France, through the Ziehm Group with effect from 17 July 2020.

The basic assumptions, on which the determination of the recoverable amounts for the goodwill impairment tests is based on, are as follows:

	2020	2019
Planning period	3 to 5 years	3 years
Growth rate	1.00%	1.00%
Expected market return	6.91% to 7.79%	6,15% bis 7,70%
Return for risk-free investments	-0,09% to 1.43%	0,00% bis 1,45%
Post-tax discount rate	5,02% to 8.05%	4,11% bis 10,03%

Due to the Corona pandemic, a planning period of five years was used for the goodwill impairment test in the segment Engineering for the EDAG Group, in order to be able to represent the recovery effect after the Corona pandemic in a sustainable fifth planning year.

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

18. Property, plant and equipment and investment properties

The development of property, plant and equipment 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 construction in progress	Total property, plant and equipment
Acquisition and production cost					
As of 1 January 2020	301,109	511,813	121,819	16,168	**950,909**
Changes in the scope of consolidation	0	0	59	0	**59**
Additions	34,528	32,049	19,268	11,857	**97,702**
Disposals	-24,800	-60,221	-9,660	-2,431	**-97,112**
Reclassifications	480	12,561	4,575	-17,930	**-314**
Currency translation differences	-3,464	-42,354	-2,096	-399	**-48,313**
As of 31 December 2020	**307,853**	**453,848**	**133,965**	**7,265**	**902,931**
Accumulated depreciation, amortisation and impairment losses					
As of 1 January 2020	52,744	272,656	78,719	55	**404,174**
Changes in the scope of consolidation	0	0	0	0	**0**
Depreciation, amortisation and impairment 2020	29,445	69,211	15,430	0	**114,086**
Depreciation and amortisation	27,457	68,234	15,401	0	**111,092**
Impairment losses	1,988	977	29	0	**2,994**
Disposals	-9,075	-43,859	-9,667	-55	**-62,656**
Reclassifications	0	1	-2	0	**-1**
Currency translation differences	-1,615	-24,263	-1,622	0	**-27,500**
As of 31 December 2020	**71,499**	**273,746**	**82,858**	**0**	**428,103**
Carrying amounts					
As of 1 January 2020	248,365	239,157	43,100	16,113	546,735
As of 31 December 2020	236,354	180,102	51,107	7,265	474,828

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 construction in progress	Total property, plant and equipment
Acquisition and production cost					
As of 1 January 2019	98,380	410,196	139,630	79,509	**727,715**
Restatement	230,165	1,947	2,930	-	**235,042**
As of 1 January 2019 restated	328,545	412,143	142,560	79,509	**962,757**
Changes in the scope consolidation	-41,425	-35,783	-29,968	-159	**-107,335**
Additions	24,340	57,339	20,645	12,139	**114,463**
Disposals	-5,616	-21,857	-11,517	-2,292	**-41,282**
Reclassifications	129	84,319	-606	-74,512	**9,330**
Reclassifications under IFRS 5	-6,018	0	0	0	**-6,018**
Currency translation differences	1,154	15,652	705	1,483	**18,994**
As of 31 December 2019	**301,109**	**511,813**	**121,819**	**16,168**	**950,909**
Accumulated depreciation, amortisation and impairment losses					
As of 1 January 2019	44,080	229,582	91,834	1,218	**366,714**
Restatement	0	0	-2,527	0	**-2,527**
As of 1 January 2019 restated	44,080	229,582	89,307	1,218	**364,187**
Changes in the scope consolidation	-14,047	-24,031	-19,266	0	**-57,344**
Depreciation, amortisation and impairment 2019	29,729	66,762	17,284	101	**113,876**
Depreciation and amortisation	28,200	66,414	17,255	0	**111,869**
Impairment losses	1,529	348	29	101	**2,007**
Write-up	-1,433	0	0	0	**-1,433**
Disposals	-1,562	-18,828	-9,977	-1,264	**-31,631**
Reclassifications	5	10,117	896	0	**11,018**
Reclassifications under IFRS 5	-4,585	0	0	0	**-4,585**
Currency translation differences	557	9,054	475	0	**10,086**
As of 31 December 2019	**52,744**	**272,656**	**78,719**	**55**	**404,174**
Carrying amounts					
As of 1 January 2019	284,465	182,561	53,253	78,291	598,570
As of 31 December 2019	248,365	239,157	43,100	16,113	546,735

The decrease in “land, land rights and buildings, including buildings on third-party land” from EUR 248,365k to EUR 236,354k is mainly due to the scheduled depreciation on capitalised rights of use assets from leases, particularly in the segment Engineering.

The decrease in the item "technical equipment and machinery" results almost entirely from the segment Mining, the decrease in “advance payments for and construction in progress” mainly from the segments Med Tech and Engineering.

The increase in “other equipment, operating and office equipment” from EUR 43,100k to EUR 51,107k is primarily due to the additions in the segment Med Tech.

Impairment losses in the amount of EUR 1,988k were recognised on land and buildings. Since one piece of land and the associated buildings are no longer used in the operational process, they were impaired to the current market value.

Property, plant and equipment in the amount of EUR 34,922k (previous year: EUR 30,890k) was used as collateral for liabilities. Property, plant and equipment is subject to restrictions on title in the amount of EUR 34,647k (previous year: EUR 44,528k) which mainly results from the segment Mining.

Property, plant and equipment includes assets in the amount of EUR 251,889k (previous year: EUR 272,945k) acquired as leases.

The purchase commitments for property, plant and equipment amount to EUR 19,621k as of 31 December 2020 (previous year: EUR 11,409k).

No government grants were deducted directly from the acquisition and production costs of property, plant and equipment in fiscal year 2020 nor in 2019.

There are no investment properties in financial year 2020 nor in 2019.

In financial year 2020 as well as in previous year no borrowing costs were capitalised.

19. The Group as lessee

The carrying amounts of right-of-use-assets capitalised under property, plant and equipment, other than sale-and-lease-back arrangements, are as follows as of 31 December 2020 and 31 December 2019:

in EUR '000	31.12.2020	31.12.2019
Land and buildings	208,240	219,905
Technical equipment and machinery	35,598	45,796
Other equipment, operating and office equipment	8,051	7,244
Total net carrying amount of right-of-use assets / of capitalised leased assets	**251,889**	**272,945**

Technical equipment and machinery amount to EUR 35,598k (previous year: EUR 45,796k) and are completely capitalised at Redpath Group. The lease terms vary between two and five years.

The additions to right-of-use assets amount to EUR 47,017k (previous year: EUR 50,957k) in the financial year. Total cash outflow from leases amounts to EUR 46,563k in the financial year (previous year: EUR 46,722k).

The total lease expense comprises the following in the financial year:

in EUR '000	31.12.2020	31.12.2019
Land and buildings	27,221	25,627
Technical equipment and machinery	13,310	15,487
Other equipment, operating and office equipment	3,839	4,375
Depreciation charge for right-of-use assets	**44,370**	**45,489**
Interest expense on lease liabilities	5,443	6,436
Other lease expenses		
Lease expense relating to short-term leases	5,259	8,795
Lease expense relating to leases of low-value assets	3,687	3,602
Expense relating to variable lease payments (not included in the measurement of lease liabilities)	165	381
Income from subleasing right-of-use assets	- 1,528	- 2,074
Total Lease Expense	**57,396**	**62,629**

As at balance sheet date, the following future obligations exist from capitalised leasing contracts:

in EUR '000	31.12.2020	31.12.2019
Maturity		
Up to 1 year	39,134	45,021
1 to 5 years	92,848	101,791
Over 5 years	119,364	122,570
Total lease liabilities	**251,346**	**269,382**

Extension or purchase options are taken into account in accounting in accordance with IFRS 16 if it is reasonably certain that they will be exercised.

The optional relief granted as a result of the Corona pandemic to treat lease concessions from a lessor as a variable lease payment rather than an amendment to the lease agreement was used. The income recognised in the consolidated income statement in the amount of EUR 38k relates to waived office rents in the Ziehm Group.

Other expenses recognised and future lease payments from leases or lease components not recognised as liabilities are as follows:

in EUR '000	2020	2019
Other expenses from leases	12,948	12,893
Future lease payments (maturity)		
Up to 1 year	8,905	7,935
1 to 5 years	1,794	1,761
Over 5 years	558	520
Total	**11,257**	**10,216**

Obligations from non-cancellable leasing contracts mainly include the incidental cost components of leasing contracts recognised in the statement of comprehensive income for which a right-of-use asset and a lease liability have been recognised in accordance with IFRS 16 and for which the practical expedient under IFRS 16.15 has not been applied, which were incurred particularly in the segment Engineering. Furthermore, the lease payments recognised as expense include rental expenses from leases of intangible assets for which the provisions of IFRS 16 are not applied.

As in the previous year, there are no significant subleases.

20. 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. Income from operating leases recognised in profit or loss amounts to EUR 2,036k in the financial year (previous year: EUR 3,624k). Income relating to variable lease payments that do not depend on an index or a rate amounts to EUR 28k in the financial year (previous year: EUR 581k).

The undiscounted future minimum lease payments from non-cancellable operating leases have the following maturities:

in EUR '000	**2020**	**2019**
Operating leases under IFRS 16		
Up to 1 year	1,737	1,722
Up to 2 years	1,182	924
Up to 3 years	648	883
Up to 4 years	165	556
Up to 5 years	144	38
Over 5 years	67	97
Total lease payments	**3,943**	**4,220**

Furthermore, the Group acts as lessor under a finance lease. The lease involved is a sublease for a building and property at EDAG Group. For this lease, the right of use resulting from the main rental contract was derecognised at the beginning of the previous year and a leasing receivable was recognised. This resulted in a gain on disposal of EUR 275k in the previous year, which was recognised through profit and loss in the statement of comprehensive income. In addition, the Redpath Group leases its own mining equipment under a head lease. Interest income on net investment in finance leases amounts to EUR 116k in the financial year (previous year: EUR 40k). The leasing instalments received are split into a repayment and an interest component, and carried forward using the effective interest method.

The due dates of the leasing receivables as of 31 December 2020 and 2019 are as follows:

in EUR '000	**2020**	**2019**
Up to 1 year	5,162	240
Up to 2 years	240	240
Up to 3 years	60	240
Up to 4 years	-	60
Up to 5 years	-	-
Over 5 years	-	-
Total undiscounted minimum lease payments	**5,462**	**780**
Unearned finance income	- 28	- 59
Net investment in the lease	**5,434**	**721**

21. 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	31.12.2020	31.12.2019
Investments accounted for using the equity method		
Associates	103,671	149,119
Joint Ventures	25,352	15,774
	129,023	**164,893**

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

in EUR '000	2020	2019
Result from investments accounted for using the equity method		
Associates	-16,064	9,193
Joint Ventures	2,845	5,015
	-13,219	**14,208**

The share in Murray & Roberts Holdings Limited, Bedfordview, South Africa, which is listed in South Africa remained unchanged at 43.8 % and is accounted for using the equity method in the present consolidated financial statements. The Group operates worldwide in the field of 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 2020.

The respective 50.0 % interest in the joint venture Konrad Versatzaufbereitung Los 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 2 offers access to the former iron ore mine in Salzgitter, which is currently being converted. As part of the joint venture Konrad Versatzaufbereitung Los 1 mine areas are opened and expanded. In addition to the retrofitting of the shafts and the excavation of the storage chambers, the so-called auxiliary pit areas for the required infrastructure regarding the emplacement operations are also being built or extended.

The 49.0 % interest in EDAG Werkzeug + Karosserie GmbH, Fulda, is also accounted for as an established company using the equity method.

The 33.0 % interest in the joint venture Innui-Inuit Redpath Limited Partnership, North Bay, Canada, is also accounted for using the equity method. Innu-Inuit Redpath LP is a strategic partnership for the Group between Redpath Group, Innu Development LP and NGC Nunasiavut Inc. and was founded in 2019.

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 in 2018 for the Jansen Potash Project Saskatchewan, Canada.

Summarised financial information for the most significant investments accounted for using the equity method as of 31 December 2020 are presented in the following tables.

The summarised balance sheet is as follows:

in EUR '000				
Company	**Murray & Roberts Holdings Limited**		**Joint Venture Konrad Versatzaufbereitung Los 1**	
Nature of the relationship	Associate		Joint Venture	
	31.12.2020	**31.12.2019**	**31.12.2020**	**31.12.2019**
Interest held in %	43.8	43.8	50.0	50.0
Current				
Cash and cash equivalents	187,550	196,295	297	0
Other current assets (excluding cash)	463,325	522,586	43,871	35,395
Total current assets	**650,875**	**718,881**	**44,168**	**35,395**
Financial liabilities (excluding trade and other payables, provisions and tax liabilities)	-121,297	-99,954	0	0
Other liabilities (including trade and other payables, provisions and tax liabilities)	-569,141	-548,826	-41,029	-33,915
Total current liabilities	**-690,438**	**-648,780**	**-41,029**	**-33,915**
Non-current				
Assets	**389,582**	**402,604**	**104**	**698**
Financial liabilities (excluding trade and other payables, provisions and tax liabilities)	-51,437	-104,454	0	0
Other liabilities (including trade and other payables, provisions and tax liabilities)	-16,036	-17,937	0	0
Total non-current liabilities	**-67,473**	**-122,391**	**0**	**0**
Net assets	**282,546**	**350,314**	**3,243**	**2,178**

in EUR '000				
Company	**Joint Venture Schacht Konrad 2**		**EDAG Werkzeug + Karosserie GmbH**	
Nature of the relationship	Joint Venture		Associate	
	31.12.2020	**31.12.2019**	**31.12.2020**	**31.12.2019**
Interest held in %	50.0	50.0	49.0	49.0
Current				
Cash and cash equivalents	650	3,451	2,400	4,049
Other current assets (excluding cash)	21,139	10,043	19,852	15,924
Total current assets	**21,789**	**13,494**	**22,252**	**19,973**
Financial liabilities (excluding trade and other payables, provisions and tax liabilities)	0	0	-2,361	-1,038
Other liabilities (including trade and other payables, provisions and tax liabilities)	-9,102	-4,438	-8,478	-7,474
Total current liabilities	**-9,102**	**-4,438**	**-10,839**	**-8,512**
Non-current				
Assets	**0**	**1,120**	**11,463**	**10,472**
Financial liabilities (excluding trade and other payables, provisions and tax liabilities)	0	0	-784	-81
Other liabilities (including trade and other payables, provisions and tax liabilities)	0	0	-1,410	-1,240
Total non-current liabilities	**0**	**0**	**-2,194**	**-1,321**
Net assets	**12,687**	**10,176**	**20,682**	**20,612**

in EUR '000				
Company	**Innu-Inuit Redpath Limited Partnership**		**TRL Mining Construction LP**	
Nature of the relationship	Joint Venture		Joint Venture	
	31.12.2020	**31.12.2019**	**31.12.2020**	**31.12.2019**
Interest held in %	33.0	33.0	33.0	33.0
Current				
Cash and cash equivalents	6	51	8,488	18,540
Other current assets (excluding cash)	15,855	9,984	21,203	23,122
Total current assets	**15,861**	**10,035**	**29,691**	**41,662**
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)	-12,890	-8,649	-16,665	-33,076
Total current liabilities	**-12,890**	**-8,649**	**-16,665**	**-33,076**
Non-current				
Assets	**0**	**0**	**0**	**0**
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	**2,971**	**1,386**	**13,026**	**8,586**

The summarised statement of comprehensive income is as follows:

in EUR '000				
Company	**Murray & Roberts Holdings Limited**		**Joint Venture Konrad Versatzaufbereitung Los 1**	
Nature of the relationship	Associate		Joint Venture	
	31.12.2020	**31.12.2019**	**31.12.2020**	**31.12.2019**
Interest held in %	43.80	43.8	50.0	50.0
Revenue	110,442	1,308,691	6,038	6,978
Depreciation and amortisation	-47,747	-39,936	-214	-728
Interest income	0	0	0	0
Interest expense	-12,310	-8,531	0	0
Profit (+) or loss (-) from continuing operations	**-29,096**	**46,860**	**1,050**	**653**
Income tax expense (-) / income (+)	-4,956	-17,372	0	0
Profit (+) or loss (-) after tax from continuing operations	**-34,052**	**29,488**	**1,050**	**653**
Profit (+) or loss (-) after tax from discontinuing operations	-2,558	-10,510	0	0
Other comprehensive income	15,187	-3,029	0	0
Total comprehensive income	**-21,423**	**15,949**	**1,050**	**653**
Dividends received	0	6,426	0	0

in EUR '000				
Company	**Joint Venture Schacht Konrad 2**		**EDAG Werkzeug + Karosserie GmbH**	
Nature of the relationship	Joint Venture		Associate	
	31.12.2020	**31.12.2019**	**31.12.2020**	**31.12.2019**
Interest held in %	50.0	50.0	49.0	49.0
Revenue	14,219	19,736	36,387	44,499
Depreciation and amortisation	0	-457	-1,978	-1,828
Interest income	0	0	0	0
Interest expense	0	0	-48	-41
Profit (+) or loss (-) from continuing operations	**2,455**	**3,310**	**109**	**2,850**
Income tax expense (-) / income (+)	0	0	0	-913
Profit (+) or loss (-) after tax from continuing operations	**2,455**	**3,310**	**109**	**1,937**
Other comprehensive income	0	0	-39	-164
Total comprehensive income	**2,455**	**3,310**	**70**	**1,773**
Dividends received	0	0	0	570

in EUR '000				
Company	**Innu-Inuit Redpath Limited Partnership**		**TRL Mining Construction LP**	
Nature of the relationship	Joint Venture		Joint Venture	
	31.12.2020	**31.12.2019**	**31.12.2020**	**31.12.2019**
Interest held in %	33.0	33.0	33.0	33.0
Revenue	34,553	31,555	88,552	53,592
Depreciation and amortisation	0	0	0	0
Interest income	26	0	126	0
Interest expense	0	-1	0	0
Profit (+) or loss (-) from continuing operations	**1,904**	**390**	**4,061**	**5,978**
Income tax expense (-) / income (+)	0	0	0	0
Profit (+) or loss (-) after tax from continuing operations	**1,904**	**390**	**4,061**	**5,978**
Profit (+) or loss (-) after tax from discontinuing operations	0	0	0	0
Other comprehensive income	0	0	0	0
Total comprehensive income	**1,904**	**390**	**4,061**	**5,978**
Dividends received	392	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 Konrad Versatzauf-bereitung Los 1**		**Joint Venture Schacht Konrad 2**		**EDAG Werkzeug + Karosserie GmbH**	
	2020	**2019**	**2020**	**2019**	**2020**	**2019**	**2020**	**2019**
Net assets as of 1 January	493,976	489,269	2,178	1,525	10,175	6,836	20,612	0
Additions	0	0	0	0	0	0	0	20,002
Profit (+) / loss (-) for the period	-36,610	18,979	1,050	653	2,455	3,310	109	1,937
Other comprehensive income	15,187	-3,029	0	0	0	0	-39	-164
Increase in capital	0	0	0	0	0	0	0	0
Adjustments / Disposals	0	0	0	0	0	0	0	0
Dividends received	0	-14,033	0	0	0	0	0	-1,163
Currency translation differences	-192,717	2,790	15	0	57	29	0	0
Net assets as of 31 December	**279,836**	**493,976**	**3,243**	**2,178**	**12,687**	**10,175**	**20,682**	**20,612**
Interest held in %	43.8	43.8	50.0	50.0	50.0	50.0	49.0	49.0
Interest in investments accounted for using the equity method	122,596	216,411	1,622	1,089	6,343	5,088	10,134	10,100
Allocated hidden reserves/burden as a result of the PPA	0	0	0	0	0	0	0	0
Impairment	-36,423	-84,756	0	0	0	0	0	0
Goodwill	0	0	0	0	0	0	7,364	7,364
Carrying amount	**86,173**	**131,655**	**1,622**	**1,089**	**6,343**	**5,088**	**17,498**	**17,464**
Investments accounted for using the equity method	86,173	131,655	1,622	1,089	6,343	5,088	17,498	17,464
Receivables (+) / liabilities (-) to investments accounted for using the equity method	0	0	-1,806	125	-6,199	-4,668	594	83

in EUR '000								
Company	**Innu-Inuit Redpath Limited Partnership**		**TRL Mining Construction LP**		**Other investments accounted for using the equity method**		**Total**	
	2020	**2019**	**2020**	**2019**	**2020**	**2019**	**2020**	**2019**
Net assets as of 1 January	1,400	0	8,586	2,450	11,728	15,482	548,655	515,562
Additions	0	0	1,308	0	3,644	33	4,952	20,035
Profit (+) / loss (-) for the period	1,904	390	4,061	5,978	-2,221	4,676	-29,252	35,923
Other comprehensive income	0	0	0	0	0	0	15,148	-3,193
Increase in capital	0	0	1,982	0	17,928	0	19,910	0
Adjustments / Disposals	0	0	0	0	0	-2,084	0	-2,084
Dividends received	-1,188	0	0	0	-114	-5,246	-1,302	-20,442
Currency translation differences	844	1,010	-1,613	158	-736	-1,133	-194,150	2,854
Net assets as of 31 December	**2,960**	**1,400**	**14,324**	**8,586**	**30,229**	**11,728**	**363,961**	**548,655**
Interest held in %	33.0	33.0	33.0	33.0	25.2 resp. 33.3 resp. 49.0 resp. 50.0	33.0 resp. 33.3 resp. 49.0 resp. 50.0	25.2 resp. 33.0 resp. 33.3 resp. 43.8 resp. 49.0 resp. 50.0	33.0 resp. 33.3 resp. 43.8 resp. 49.0 resp. 50.0
Interest in investments accounted for using the equity method	977	462	4,727	2,833	11,683	6,302	158,082	242,285
Allocated hidden reserves/burden as a result of the PPA	0	0	0	0	0	0	0	0
Impairment	0	0	0	0	0	0	-36,423	-84,756
Goodwill	0	0	0	0	0	0	7,364	7,364
Carrying amount	**977**	**462**	**4,727**	**2,833**	**11,683**	**6,302**	**129,023**	**164,893**
Investments accounted for using the equity method	977	462	4,727	2,833	11,683	6,302	129,023	164,893
Receivables (+) / liabilities (-) to investments accounted for using the equity method	0	0	0	0	3,744	-965	-3,667	-5,425

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

22. Other financial assets

Other financial assets break down as follows:

in EUR '000	31.12.2020			31.12.2019		
	Remaining maturity			Remaining maturity		
	> 1 year	< 1 year	Total	> 1 year	< 1 year	Total
Non-consolidated investments in affiliated companies	438	-	438	437	-	437
Loans	46,546	77,883	124,429	48,018	38,941	86,959
Securities measured at fair value through profit and loss	29,385	63,459	92,844	28,363	230,137	258,500
Fair values of derivative financial instruments	-	-	-	-	23	23
Other financial assets	**76,369**	**141,342**	**217,711**	**76,818**	**269,101**	**345,919**

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 European commercial papers, managed assets by the Royal Bank of Canada Investment Management (UK) Limited, a securities depot consisting of European corporate bonds and share positions.

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.

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 0k as at the balance sheet date (previous year: EUR 0k).

The development of risk allowance for loans during financial year 2020 is as follows:

in EUR '000	Bucket 1	Bucket 2	Bucket 3	Total
As of 01 January 2020	**-85**	**0**	**0**	**-85**
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	-251	0	0	**-251**
Disposal due to settlement / Consumption	16	0	0	**16**
Reversal / Write-up	0	0	0	**0**
Change in the scope of consolidation	-7,823	0	0	**-7,823**
Currency translation differences and other changes	0	0	0	**0**
As of 31 December 2020	**-8,143**	**0**	**0**	**-8,143**

The development of the gross book value of loans during financial year 2020 is as follows:

in EUR '000	Bucket 1	Bucket 2	Bucket 3	Total
As of 01 January 2020	**42,604**	**0**	**44,440**	**87,044**
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	91,184	0	0	**91,184**
Disposal due to settlement / Consumption	-52,247	0	-1,231	**-53,478**
Change in the scope of consolidation	7,823	0	0	**7,823**
Currency translation differences and other changes	-1	0	0	**-1**
As of 31 December 2020	**89,363**	**0**	**43,209**	**132,572**

The net loans of EUR 124,429k (previous year: EUR 86,959k) 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 neither necessary in the reporting period nor in the previous year. The net increase in loans results in particular from granting new loans to related parties and scheduled and unscheduled repayments of loans at the same time.

The development of risk allowance for loans as of 31 December 2019 is as follows:

in EUR '000	Bucket 1	Bucket 2	Bucket 3	Total
As of 01 January 2019	**-138**	**0**	**0**	**-138**
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	-41	0	0	**-41**
Disposal due to settlement / Consumption	75	0	0	**75**
Reversal / Write-up	19	0	0	**19**
Change in the scope of consolidation	0	0	0	**0**
Currency translation differences and other changes	0	0	0	**0**
As of 31 December 2019	**-85**	**0**	**0**	**-85**

The development of the gross book value for loans as of 31 December 2019 is as follows:

in EUR '000	Bucket 1	Bucket 2	Bucket 3	Total
As of 01 January 2019	**46,789**	**0**	**0**	**46,789**
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	27,820	0	44,440	**72,260**
Disposal due to settlement / Consumption	-32,018	0	0	**-32,018**
Change in the scope of consolidation	0	0	0	**0**
Currency translation differences and other changes	13	0	0	**13**
As of 31 December 2019	**42,604**	**0**	**44,440**	**87,044**

23. Trade and other receivables

in EUR '000	31.12.2020		31.12.2019	
	current	non-current	current	non-current
Trade receivables	234,765	140	320,468	231
Other receivables (financial instruments)	63,343	5,571	14,088	6,037
Other receivables (non-financial instruments)	29,287	97	42,182	0
Carrying amount (net)	**327,395**	**5,808**	**376,738**	**6,268**

Risk allowances for receivables from goods and services developed as follows during financial year 2020:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2020	**-5,897**	**-5,581**	**-11,478**
Transfer to Bucket 2	0	0	**0**
Transfer to Bucket 3	0	0	**0**
Additions	-25,574	-1,338	**-26,912**
Disposal due to settlement / Consumption	0	1,707	**1,707**
Reversal / Write-up	5,589	1,075	**6,664**
Change in the scope of consolidation	0	-102	**-102**
Reclassification under IFRS 5	0	0	**0**
Currency translation differences and other changes	-838	82	**-756**
As of 31 December 2020	**-26,720**	**-4,157**	**-30,877**

The gross book values of trade receivables developed as follows during financial year 2020:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2020	**325,018**	**7,159**	**332,177**
Transfer to Bucket 2	-15	0	**-15**
Transfer to Bucket 3	-429	444	**15**
Additions	815,432	1,614	**817,046**
Disposal due to settlement / Consumption	-765,444	-2,845	**-768,289**
Change in the scope of consolidation	-111,669	102	**-111,567**
Reclassification under IFRS 5	0	0	**0**
Currency translation differences and other changes	-3,538	-47	**-3,585**
As of 31 December 2020	**259,355**	**6,427**	**265,782**

There were no significant changes in gross book values that would have led to a change in expected credit losses.

Risk allowances for receivables from goods and services developed as follows during financial year 2019:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2019	**-2,774**	**-4,446**	**-7,220**
Transfer to Bucket 2	441	-441	**0**
Transfer to Bucket 3	0	0	**0**
Additions	-7,603	-1,864	**-9,467**
Disposal due to settlement / Consumption	1,469	801	**2,270**
Reversal / Write-up	1,128	270	**1,398**
Change in the scope of consolidation	1,546	149	**1,695**
Reclassification under IFRS 5	0	-38	**-38**
Currency translation differences and other changes	-104	-12	**-116**
As of 31 December 2019	**-5,897**	**-5,581**	**-11,478**

The gross book values of trade receivables developed as follows during financial year 2019:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2019	**362,140**	**8,380**	**370,520**
Transfer to Bucket 2	-461	441	**-20**
Transfer to Bucket 3	-1,751	1,771	**20**
Additions	732,420	-119	**732,301**
Disposal due to settlement / Consumption	-659,055	-3,276	**-662,331**
Change in the scope of consolidation	-110,077	-38	**-110,115**
Reclassification under IFRS 5	292	0	**292**
Currency translation differences and other changes	1,510	0	**1,510**
As of 31 December 2019	**325,018**	**7,159**	**332,177**

Other receivables break down as follows:

in EUR '000	31.12.2020	31.12.2019
Current		
financial instruments		
Creditors with debit balances	294	91
Other receivables	64,341	14,027
Allowances (Buckets 1-3)	- 1,292	- 30
	63,343	**14,088**
No financial instruments		
Value added tax receivables	7,483	23,765
Receivables from employees	1,524	1,510
Other tax receivables	423	535
Other receivables	21,115	17,650
Allowances	- 1,258	- 1,278
	29,287	**42,182**
	92,630	**56,270**
Non-current		
financial instruments		
Other receivables	**6,583**	**7,046**
Allowances (Buckets 1-3)	- 1,012	- 1,009
	5,571	**6,037**
No financial instruments		
Other receivables	97	-
Allowances	-	-
	97	**-**
	5,668	**6,037**
Other receivables	**98,298**	**62,307**

Risk allowances for other receivables (financial instruments) developed as follows during financial year 2020:

in EUR '000	Bucket 1	Bucket 2	Bucket 3	Total
As of 01 January 2020	**-27**	**0**	**-1,012**	**-1,039**
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	-1,328	0	0	**-1,328**
Disposal due to settlement / Consumption	1	0		**1**
Reversal / Write-up	24	0	9	**33**
Change in the scope of consolidation	0	0	0	**0**
Currency translation differences and other changes	29	0	0	**29**
As of 31 December 2020	**-1,301**	**0**	**-1,003**	**-2,304**

The gross carrying amounts of other receivables (financial instruments) developed as follows during financial year 2020:

in EUR '000	Bucket 1	Bucket 2	Bucket 3	Total
As of 01 January 2020	**20,110**	**0**	**1,054**	**21,164**
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	72,141	0	1,362	**73,503**
Disposal due to settlement / Consumption	-23,162	0	0	**-23,162**
Change in the scope of consolidation	0	0	0	**0**
Currency translation differences and other changes	-287	0	0	**-287**
As of 31 December 2020	**68,802**	**0**	**2,416**	**71,218**

There were no significant changes in gross book values that would have led to a change in expected credit losses.

Risk allowances for other receivables (financial instruments) developed as follows during financial year 2019:

in EUR '000	Bucket 1	Bucket 2	Bucket 3	Total
As of 01 January 2019	**-45**	**0**	**-1,081**	**-1,126**
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	-25	0	0	**-25**
Disposal due to settlement / Consumption	1	0		**1**
Reversal / Write-up	15	0	63	**78**
Change in the scope of consolidation	30	0	0	**30**
Currency translation differences and other changes	-3	0	6	**3**
As of 31 December 2019	**-27**	**0**	**-1,012**	**-1,039**

The gross carrying amounts of other receivables (financial instruments) developed as follows during financial year 2019:

in EUR '000	Bucket 1	Bucket 2	Bucket 3	Total
As of 01 January 2020	**14,331**	**0**	**2,162**	**16,493**
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	24,273	0	44	**24,317**
Disposal due to settlement / Consumption	-15,752	0	-1,153	**-16,905**
Change in the scope of consolidation	-3,033	0	0	**-3,033**
Currency translation differences and other changes	291	0	1	**292**
As of 31 December 2019	**20,110**	**0**	**1,054**	**21,164**

24. Contract Assets and Liabilities

The contractual assets and liabilities are composed as follows:

in EUR '000	31.12.2020	31.12.2019
Contract assets	**58,387**	**92,135**
Engineering	51,319	70,824
Mining	6,943	21,238
Med Tech	125	73
Aviation	0	0
Contract liabilities	**136,316**	**107,098**
Engineering	125,402	45,500
Mining	4,284	55,776
Med Tech	6,630	5,822
Aviation	0	0

Risk allowances for contract assets developed as follows during financial year 2020:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2020	**-45**	**0**	**-45**
Transfer to Bucket 2	0	0	**0**
Transfer to Bucket 3	0	0	**0**
Additions	-27	0	**-27**
Disposal due to settlement / Consumption	0	0	**0**
Reversal / Write-up	36	0	**36**
Change in the scope of consolidation	0	0	**0**
Currency translation differences and other changes	0	0	**0**
As of 31 December 2020	**-36**	**0**	**-36**

The gross carrying amounts of contract assets developed as follows during financial year 2020:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2020	**92,180**	**0**	**92,180**
Transfer to Bucket 2	0	0	**0**
Transfer to Bucket 3	0	0	**0**
Additions	76,625	0	**76,625**
Disposal due to settlement / Consumption	-106,899	**0**	**-106,899**
Change in the scope of consolidation	0	0	**0**
Currency translation differences and other changes	-3,483	0	**-3,483**
As of 31 December 2020	**58,423**	**0**	**58,423**

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

Risk allowances for contract assets developed as follows during the financial year 2019:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2019	**-43**	**-1**	**-44**
Transfer to Bucket 2	0	0	**0**
Transfer to Bucket 3	0	0	**0**
Additions	-69	0	**-69**
Disposal due to settlement / Consumption	0	0	**0**
Reversal / Write-up	8	1	**9**
Change in the scope of consolidation	59	0	**59**
Currency translation differences and other changes	0	0	**0**
As of 31 December 2019	**-45**	**0**	**-45**

The gross carrying amounts of contract assets developed as follows during financial year 2019:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2019	**289,739**	**0**	**289,739**
Transfer to Bucket 2	0	0	**0**
Transfer to Bucket 3	0	0	**0**
Additions	238,262	0	**238,262**
Disposal due to settlement / Consumption	-278,754	**0**	**-278,754**
Change in the scope of consolidation	-158,984	0	**-158,984**
Currency translation differences and other changes	1,917	0	**1,917**
As of 31 December 2019	**92,180**	**0**	**92,180**

Revenue recognised in the reporting period from performance obligations satisfied (or partially satisfied) in previous periods is as follows:

in EUR '000	31.12.2020	31.12.2019
Revenue recognised in the reporting period from performance obligations satisfied (or partially satisfied) in previous periods	0	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 cannot be determined without considering adjustments of performance obligations.

Contract assets exist in the segments Engineering, Mining and 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	2020		2019	
	Contract Assets	**Contract Liabilities**	**Contract Assets**	**Contract Liabilities**
Contract asset / Contract liability at the beginning of the reporting period	**92,135**	**-107,098**	**289,695**	**-194,291**
Revenue recognised in the reporting period that was included in the contract liability balance at the beginning of period	0	110,885	**0**	**117,752**
Reclassification of contract assets at the beginning of period to accounts receivable (due to invoicing)	-70,823	0	**-156,849**	**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	-57,481	-140,094	**-89,495**	**58,130**
Increase due to change in measure of progress (which have still not resulted in accounts receivable)	86,390	0	**298,160**	**0**
Net changes in allowances / impairment for contract assets	-8	0	**-41**	**0**
Changes due to business combinations	0	0	**0**	**0**
Reclassifications between contract assets and contract liabilities since the net amount of contract asset and payments received is changing the sign (+/-)	11,649	0	**-114,088**	**-180,365**
Currency translation difference for contract assets / liabilities	-3,475	426	**1,919**	**-44**
other significant changes in contract balances	0	-435	**21,759**	**-4,348**
Changes in the scope of consolidation	0	0	**-158,925**	**96,068**
Contract asset / Contract liability at the end of the reporting period	**58,387**	**-136,316**	**92,135**	**-107,098**

The transaction price allocated to the outstanding performance obligations as of 31 December 2020 is as follows:

in EUR '000	up to 1 year	1 - 5 years	> 5 years	Total
	132,575	3,684	57	136,316

The transaction price allocated to the outstanding performance obligations as of 31 December 2019 is as follows:

in EUR '000	up to 1 year	1 - 5 years	> 5 years	Total
	49,323	57,673	102	107,098

As revenues in the segment 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 2020 there are no incremental costs of obtaining a contract with a customer or costs to fulfil a contract, which should be capitalised.

25. Inventories

The carrying amount of the inventories amounting to EUR 101,952k (previous year: EUR 108,016k), breaks down as follows:

in EUR '000	31.12.2020	31.12.2019
Raw materials, consumables and supplies	22,886	23,984
Unfinished goods, work in progress	4,598	9,703
Finished goods	13,064	17,040
Merchandises	52,887	56,272
Advance payments	8,517	1,017
Inventories	**101,952**	**108,016**

Inventories are written down to the net realisable value if lower than the acquisition or production costs. The carrying amount of the inventories measured at the net realisable value amounts to EUR 16,187k (previous year: EUR 17,518k). Total write-downs amounted to EUR 12,662k (previous year: EUR 9,494k). As in the previous year, the impairment losses were fully recognised in cost of materials.

As in previous year, no inventories were pledged as collateral for liabilities.

26. Cash and cash equivalents

in EUR '000	31.12.2020	31.12.2019
Cash and bank balances	662,444	524,617
Other cash equivalents	11	18
Cash in transit	1,798	3,251
Cash and cash equivalents	**664,253**	**527,886**

With regard to the development of cash and cash equivalents, please refer to the consolidated statement of cash flows. As of 31 December 2020, the Group is not able to freely dispose of a portion amounting to EUR 330k (previous year: EUR 298k).

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

As of 31 December 2020, none of the segments had assets held for sale or liabilities associated with assets held for sale in accordance with IFRS 5.

As of 31 December 2019 the following assets and liabilities of REFORM Maschinenfabrik Adolf Rabenseifner GmbH & Co. KG were classified as assets held for sale / liabilities associated with assets held for sale in the segment **Engineering** (fair value hierarchy measurement level 1):

in EUR '000	**31.12.2019**
Property, plant and equipment	1,433
Trade and other receivables	352
Inventories	254
Cash and cash equivalents	1,036
Assets held for disposal	**3,075**

in EUR '000	**31.12.2019**
Provisions for pensions	40
Other provisions	830
Financial liabilities	29
Trade and other payables	892
Deferred tax liabilities	1,284
Liabilities associated with assets held for disposal	**3,075**

The sale of the company was considered highly probable. These assets and liabilities were valued at the previous year's reporting date at the expected selling price totalling EUR 1. The sale was expected to take place during financial year 2020, subject to the expected approval of the antitrust authorities. As expected, the sale took place with effect from 8 September 2020 at a selling price of EUR 1. Consequently, there was no impact on the income statement in 2020 from the sale.

In all other segments, as of 31 December 2019, there were no assets held for sale or liabilities associated with assets held for sale in accordance with IFRS 5.

28. Equity

Details of the development of equity between 1 January and 31 December 2020 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 of the parent company. As of 31 December 2020, the share capital of EUR 15,000k is fully paid in.

Capital reserve

The capital reserve as of 31 December 2020 is at EUR 623,355k (previous year: EUR 623,355k).

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, IFRS 15 and IFRS 16 and total other comprehensive income are reported.

Other comprehensive income contains currency translation differences, effects from remeasurements of defined benefit plans and the effective part of changes from cash flow hedges. The currency translation differences include the differences from translating the currencies of financial statements of foreign subsidiaries, which are recognised directly in equity.

In 2020 no distributions were made to the shareholders of ATON GmbH. However, the profit and loss transfer agreement exists unchanged between ATON 2 GmbH and ATON GmbH. This profit and loss transfer in the amount of EUR -49,687k is presented as an equity transaction in accordance with IFRS. In the current financial year, EUR 0k were distributed to minority shareholders at the level of subsidiaries (previous year: EUR 6,071k).

in EUR '000	31.12.2020	31.12.2019
Retained earnings including profit or loss		
Revenue reserves and profit (+) or loss (-) carried forward	355,734	18,789
Profit attributable to the owners	-73,614	295,765
Reserve from the transition to IFRS / from application of IFRS 9, 15 and 16	147	147
	282,267	**314,701**
Other comprehensive income		
Currency translation differences	-24,728	-22,868
Remeasurements of defined benefit plans	-6,074	-5,605
Effective part of changes from cash flow hedges	0	0
	-30,802	**-28,473**
Other reserves	**251,465**	**286,228**

The effective portion of the hedging relationship from currency hedging is generally recognised in the reserves from cash flow hedges. The development in the financial year and the previous year is as follows:

in EUR '000	31.12.2020	31.12.2019
Reserves from cash flow hedges as of 1 January (net of tax)	**0**	**- 1,645**
Change due to effective hedge relationship	0	-6,462
Termination of hedge relationships due to P&L impact of underlying transaction	0	4,148
Change in deferred taxes	0	694
Change in scope of consolidation	0	3,265
Reserves from cash flow hedges as of 31 December (net of tax)	**0**	**0**

The FFT Group, which was sold in 2019, used cash flow hedges. Since the disposal, no cash flow hedges are currently accounted for.

Non-controlling interests

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

in EUR '000	31.12.2020	31.12.2019
EDAG subgroup	23,279	37,271
Redpath subgroup (previous year: ATM subgroup)	-5,292	-5,985
Total non-controlling interests	**17,987**	**31,286**

As of balance sheet date, non-controlling interests in the EDAG subgroup result from the fact that the ATON Group only holds 74.66 % (previous year: 72.12 %) of the shares in EDAG Engineering Group AG, Arbon, Switzerland as parent company of the subgroup.

As in the previous year, the non-controlling interests relating to the Redpath subgroup (in the previous year: ATM subgroup) are not material, so that no information is presented for subsidiaries’ balance sheet, income statement and cash flow statement with non-controlling interests accordingly.

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

in EUR '000	31.12.2020	31.12.2019
Percentage of non-controlling interests	**25.3**	**27.9**
Non-current assets	359,730	409,096
Current assets	303,808	299,155
Non-current liabilities	-332,745	-367,467
Current liabilities	-239,475	-216,909
Net assets	**91,318**	**123,875**
Net assets corresponding to non-controlling interests	**23,140**	**34,561**
Revenue	653,319	777,798
Profit or loss for the period	-39,266	4,132
Other comprehensive income, net of income taxes	-2,621	-4,414
Total comprehensive income to non-controlling interest	**-41,887**	**-282**
Profit or loss for the period corresponding to non-controlling interests	-10,152	2,546
Other comprehensive income (net of taxes) corresponding to non-controlling interests	-664	-1,232
Cash flow from operating activities	150,109	78,865
Cash flow from investing activities	-15,488	-23,823
Cash flow from financing activities	-47,174	-48,492
Foreign exchange effects	-1,773	206
Net increase of cash and cash equivalents	**85,674**	**6,756**

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

in EUR '000	2020	2019
As of 1 January	**31,286**	**44,041**
Changes in equity recognised directly in equity		
Dividend payments	-	- 6,071
Changes in the scope of consolidation	0	- 3,724
Change in non-controlling interest due to step acquisition	3,589	- 1,867
Remeasurement of defined benefit plans	- 45	- 1,323
Currency translation differences from translation of financial statements of foreign subsidiaries	- 228	- 142
	3,316	**- 13,127**
Changes in equity recognised in profit or loss	- 16,615	372
As of 31 December	**17,987**	**31,286**

During the financial year 2020, ATON Group increased its share in the EDAG Group from 72.12 % to 74.66 %. Due to this additional acquisition of further shares in the EDAG Group, minority interests decreased by EUR 3,208k.

In addition, the Redpath Group acquired the outstanding 30.0 % of Redpath Rig Resources JV Limited, Kitwe, Zambia, during the financial year. This reduced the negative equity attributable to minority interests by EUR 6,797k and thus increased overall the equity attributable to minority interests.

The changes in equity recognised directly in equity attributable to minority interests consists of EUR -10,152k at EDAG Group and EUR -6,463k at Redpath Group.

29. 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 51,822k (previous year: EUR 64,193k) were paid. Other long-term employee benefits according to IAS 19.153 amount to EUR 820k in 2020 (previous year: EUR 1,292k).

The defined benefit obligations relate to direct pension commitments and indirect pension commitments made through VKE Versorgungkasse EDAG-Firmengruppe e.V. (VKE) for companies the EDAG Group. 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 purpose of VKE – a group supported fund – is to serve as a social institution of EDAG and its affiliated companies wishing to have their company retirement pension schemes managed by VKE. The sponsors (members using VKE to handle their company retirement pension schemes) are the following:

- EDAG Engineering GmbH, Wiesbaden
- EDAG Production Solutions GmbH & Co. KG, Fulda

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. 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 on or 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 Switzerland, the Group's company pension scheme is being handled by the Swiss Life Collective BVG Foundation. Assets are invested jointly for all accounts in a collective fund. All biometric risks (disability, death and longevity) as well as the investment and interest rate risk are reinsured with Swiss Life.

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 Mexico, employees 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 amounts to three month's salary.

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 using the duration of employment as well as the estimated future salary and pension trends.

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

in EUR '000	2020	2019
Present value of funded obligations	50,292	43,651
Fair value of plan assets	- 21,835	- 22,876
Deficit of funded plans	**28,457**	**20,775**
Present value of unfunded obligations	21,618	29,413
Total deficit of defined benefit pension plans	**50,075**	**50,188**
Provisions for pensions as of 31 December	**50,075**	**50,188**

The provisions for pensions changed as follows:

in EUR '000	2020	2019
Provisions for pensions as of 1 January	50,188	45,769
Changes in the scope of consolidation	0	-4,753
Current service cost	2,395	1,377
Past service cost	360	480
Net interest cost (+) / income (-)	498	861
Remeasurements	816	7,149
from changes in demographic assumptions	-1,321	-427
from changes in financial assumptions	2,184	7,538
from experience gains (-) / losses (+)	-47	38
Currency translation differences	-496	125
Employer contributions	-127	-224
Benefit payments	-3,569	-561
thereof from settlements	0	0
Administration cost	10	2
Reclassification in accordance with IFRS 5	0	-37
Provisions for pensions as of 31 December	**50,075**	**50,188**

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

in EUR '000	2020	2019
Present value of the defined benefit obligation as of 1 January	73,064	73,678
Changes in the scope of consolidation	0	-8,735
Current service cost	2,395	1,377
Past service cost	360	480
Interest cost	700	1,352
Remeasurements of defined benefit plans		
from changes in demographic assumptions	-1,321	-427
from changes in financial assumptions	2,224	7,306
from experience gains (-) / losses (+)	-47	38
Currency translation differences	-485	212
Contributions by plan participants	127	121
Benefit payments	-5,117	-2,215
thereof from settlements	0	-771
Administration cost	10	2
Reclassification in accordance IFRS 5	0	-125
Present value of the defined benefit obligation as of 31 December	**71,910**	**73,064**

The fair value of plan assets developed as follows:

in EUR '000	2020	2019
Fair value of plan assets as of 1 January	22,876	27,909
Changes in the scope of consolidation	0	-3,981
Interest income	202	492
Return on (-) / loss from (-) plan assets excluding amounts included in interest income	40	-232
Currency translation differences	11	85
Employer contributions	127	224
Contributions by plan participants	127	121
Benefit payments	-1,548	-1,654
thereof payments from settlements	0	-771
Reclassification in accordance IFRS 5	0	-88
Fair value of plan assets as of 31 December	**21,835**	**22,876**

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

in EUR '000	2020	in %	2019	in %
Debt instruments (Germany)	632	3%	20,611	90%
thereof without a quoted market price in an active market	0		0	
thereof investments in employer company or related parties	632		20,611	
Asset values of reinsurance cover pension trust (Germany)	212	1%	212	1%
thereof without a quoted market price in an active market	212		212	
Collective foundation (Switzerland)	1,968	9%	2,053	9%
thereof without a quoted market price in an active market	1,968		2,053	
Cash and cash equivalents	19,023	87%	0	0%
Plan assets as of 31 December	**21,835**	**13%**	**22,876**	**100%**

Neither as of 31 December 2020 nor as of 31 December 2019, 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:

	2020	2019
Average discount rate		
Germany	0.83%	1.12%
India	6.55%	7.12%
Indonesia	6.45%	7.40%
Italy	0.97%	1.10%
Mexico	7.00%	8.00%
Switzerland	0.20%	0.35%
Biometric accounting bases		
Germany	Richttafeln 2018 G	Richttafeln 2018 G
India	IALM 2012 - 14	IALM 2012 - 14
Indonesia	TMI 4 (2019)	TMI 3 (2011)
Italy	RG 48	RG 48
Mexico	ENOE 2010 - INEGI	ENOE 2010 - INEGI
Switzerland	BVG 2015 GT	BVG 2015 GT

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		2020	in %	2019	in %
Average discount rate	+ 0,50 %	- 62,628	-187.09	- 64,722	-188.58
	- 0,50 %	68,726	-4.43	73,720	0.90
Average life expectancy	+ 1 year	64,974	9.65	69,593	4.75
	- 1 year	- 63,979	-188.97	- 68,553	-193.83

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 correspond to 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 2021, the Group expects contributions to defined benefit pension plans amounting to EUR 2,031k (previous year: EUR 4,617k) in total.

The weighted average duration of the defined benefit obligation of ATON's defined benefit plans is 12 years as of 31 December 2020 (previous year: 12 years).

30. 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 1 January 2020	**7,720**	**6,058**	**2,322**	**234**	**5,276**	**1,222**	**9,728**	**24,840**
thereof: current	**7,673**	2,737	1,737	234	5,276	1,222	7,641	**18,847**
Changes in the scope of consolidation	**-**	- 49	- 7	-	- 75	-	-	**- 131**
Currency translation differences	**- 30**	- 301	- 5	0	5	- 70	- 186	**- 557**
Additions	**893**	7,724	3,340	18	996	332	13,007	**25,417**
Consumption	**- 5,306**	- 1,621	- 535	- 96	- 2,713	-	- 6,615	**- 11,580**
Reversal	**- 191**	- 220	- 1,122	- 19	- 131	-	- 1,398	**- 2,890**
Interest effect	**-**	14	0	-	-	-	12	**26**
Other changes	**-**	-	-	-	-	- 83	83	**-**
As of 31 December 2020	**3,086**	**11,605**	**3,993**	**137**	**3,358**	**1,401**	**14,631**	**35,125**
thereof: current	**3,018**	8,078	3,309	137	3,357	1,401	12,701	**28,983**

in EUR '000	Income taxes	Personnel	Warran-ties	Rework	Onerous contracts	Litigation risks	Other	Total other provi-sions
As of 1 January 2019	**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**
Changes in the scope of consolidation	**-10,478**	-1,421	0	-1,748	-6,491	0	-342	**-10,002**
Currency translation differences	**16**	-5	7	32	466	9	11	**520**
Additions	**14,310**	2,598	1,891	65	4,189	205	9,527	**18,475**
Consumption	**-1,783**	-3,901	-723	-17	-2,823	-105	-3,346	**-10,915**
Reversal	**-20**	-597	-1,569	-849	-1,600	-48	-3,296	**-7,959**
Interest effect	**0**	19	0	0	0	0	-6	**13**
Reclassification under IFRS 5	**0**	-243	0	0	0	0	-587	**-830**
Other changes	**43**	0	0	0	0	0	0	**0**
As of 31 December 2019	**7,720**	**6,058**	**2,322**	**234**	**5,276**	**1,222**	**9,728**	**24,840**
thereof: current	**7,673**	2,737	1,737	234	5,276	1,222	7,641	**18,847**

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 of EUR 6,806k (previous year: EUR 1,731k) and service anniversaries provisions of EUR 2,423k (previous year: EUR 2,037k).

The provisions for warranties are recognised for statutory and contractual warranty obligations as well as goodwill services. The provisions are recognised on the basis of the products sold or the projects completed, whereby the period, on which the calculation is based, is determined depending on the product, service or industry. The measurement is made on the basis of past experience for repairs and complaints.

Provisions for rework are obligations arising subsequently from product sales or invoiced projects.

Provisions for onerous contracts are recognised for expected contract-related losses from development and production orders or sales and rental 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 as part of the other provisions amount to EUR 408k in the financial year (previous year: EUR 430k).

31. Financial liabilities

Financial liabilities break down as follows:

in EUR '000	31.12.2020 Total	31.12.2020 Remaining maturities < 1 year	> 1 year < 5 years	> 5 years	31.12.2019 Total	31.12.2019 Remaining maturities < 1 year	> 1 year < 5 years	> 5 years
Liabilities to banks	182,163	53,524	124,836	3,803	237,510	111,210	83,300	43,000
thereof from current accounts	2,201	2,201	-	0	-	-	-	0
thereof from loans	179,962	51,323	124,836	3,803	237,510	111,210	83,300	43,000
Loan liabilities	578,382	577,982	400	0	628,524	628,524	0	0
thereof to shareholders	577,000	577,000	0	0	607,661	607,661	0	0
thereof to related parties	632	232	400	0	20,610	20,610	0	0
thereof to investments accounted for using the equity method	750	750	0	0	253	253	0	0
Lease liabilities	251,346	39,134	92,848	119,364	269,382	45,021	101,791	122,570
Liabilities from derivative financial instruments	720	720	0	0	278	278	0	0
Liabilities from bills	0	0	0	0	0	0	0	0
Total	**1,012,611**	**671,360**	**218,084**	**123,167**	**1,135,694**	**785,033**	**185,091**	**165,570**

For details of lease liabilities, please refer to note **19. The Group as lessee**. For details regarding liabilities from derivative financial instruments, please refer to note **22. Other financial assets**.

The table below shows the future undiscounted cash flows of financial liabilities as of 31 December 2020 that have an impact on the future liquidity status of the ATON Group:

		Cash flow in 2021			Cash flow in 2022-2024			Cash flow in 2025 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	182,163	1,289	2,791	51,361	3,409	884	2,693	335	0	128,109	0
Lease liabilities	251,346	9,740	0	18,646	831	0	16,438	14,590	0	216,262	0
Loan liabilities to sharehold-ers, related parties and asso-ciates	577,632	1,785	0	-	0	0	0	0	0	0	577,632
Loan liabilities to investments accounted for using the equity method	750	0	0	750	0	0	0	0	0	0	0
Liabilities from derivative fi-nancial instruments	720	0	0	720	0	0	0	0	0	0	0
Trade payables	66,812	0	0	64,087	0	0	6	0	0	0	2,719
Contract Liabilities	136,316	0	0	129,645	0	0	1,650	0	0	32	4,989
Other liabilities (financial in-struments)	21,294	237	0	3,198	0	0	16,494	0	0	0	1,602
Total	**1,237,033**	**13,051**	**2,791**	**268,407**	**4,240**	**884**	**37,281**	**14,925**	**0**	**344,403**	**586,942**

The following table shows the figures as of 31 December 2019, also disclosing the future undiscounted cash flows of financial liabilities:

		Cash flow in 2020			Cash flow in 2021-2023			Cash flow in 2024 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	237,510	2,164	5,595	120,315	1,684	319	3,599	4,352	761	113,596	-
Lease liabilities	269,382	4,730	-	47,513	5,140	-	39,771	9,878	-	52,204	129,894
Loan liabilities to sharehold-ers, related parties and asso-ciates	628,271	-	-	-	-	-	-	-	-	-	628,271
Loan liabilities to investments accounted for using the equity method	253	-	-	253	-	-	-	-	-	-	-
Liabilities from derivative fi-nancial instruments	278	-	-	278	-	-	-	-	-	-	-
Trade payables	110,444	29	-	110,430	-	-	14	-	-	-	-
Contract Liabilities	107,098	-	-	57,775	-	-	49,221	-	-	102	-
Other liabilities (financial in-struments)	12,341	-	-	4,307	-	-	8,034	-	-	-	-
Total	**1,365,577**	**6,923**	**5,595**	**340,871**	**6,824**	**319**	**100,639**	**14,230**	**761**	**165,902**	**758,165**

32. Trade and other payables

	31.12.2020				31.12.2019			
	Total	Remaining maturities			Total	Remaining maturities		
in EUR '000		**< 1 year**	**> 1 year < 5 years**	**> 5 years**		**< 1 year**	**> 1 year < 5 years**	**> 5 years**
Trade payables								
to third parties	66,798	66,792	6	-	110,396	110,383	13	-
to related parties	-	-	-	-	16	16	-	-
to affiliated companies	14	14	-	-	31	31	-	-
to associates	-	-	-	-	1	-	1	-
	66,812	**66,806**	**6**	**-**	**110,444**	**110,430**	**14**	**-**
Other liabilities								
Other liabilities (financial instruments)								
to associates	11,282	-	11,282	-	8,034	-	8,034	-
to related parties	0	0	-	-	5	5	-	-
from business combinations	6,480	1,268	5,212	-	1,267	1,267	-	-
from other liabilities (financial instruments)	3,532	3,532	-	-	3,035	3,035	-	-
	21,294	**4,800**	**16,494**	**-**	**12,341**	**4,307**	**8,034**	**-**
Other liabilities (no financial instruments)								
payments received on account of orders	8,737	6,374	2,363	-	12,859	10,992	1,867	-
to employees	57,144	57,144	-	-	65,484	65,484	-	-
from social security contributions	3,742	3,659	83	-	3,775	3,775	-	-
from value added tax and other taxes	26,245	26,245	-	-	29,417	29,417	-	-
from deferred income	1,520	1,520	-	-	1,314	1,314	-	-
from other liabilities (no financial instruments)	832	832	-	-	655	655	-	-
	98,220	**95,774**	**2,446**	**-**	**113,504**	**111,637**	**1,867**	**-**
Total	**186,326**	**167,380**	**18,946**	**-**	**236,289**	**226,374**	**9,915**	**-**

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.

33. 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 -85,054k; previous year: EUR 319,131k) adjusted by the net amount of interest expense, interest income and dividend income (EUR 24,919k; previous year: EUR 17,977k).

In the reporting period, the cash flow from operating activities amounts to EUR 169,012k (previous year: EUR 132,229k) and thus increased by EUR 36,783k compared to the previous year. The gross cash flow amounting to EUR 149,534k is EUR 67,489k below previous year. On the contrary, the change in other assets and liabilities had a positive effect on the development of cash flow from operating activities with an improvement of EUR 68,925k in the reporting period (previous year: deterioration of EUR 43,200k). In addition, income taxes paid amounting to EUR 24,376k are EUR 2,217k below previous year. In contrast, interest paid in the reporting period are EUR 7,736k higher than in previous year's period.

Cash flow from investing activities

The cash inflow from investing activities amounts to EUR 79,021k (previous year: EUR 139,839k). The decreased net cash inflow is mainly driven by the net proceeds from the disposal of consolidated subsidiaries amounting to EUR 466,182k in previous period. There are no such cash inflows in the reporting period. The net investments in financial assets and associates result in a cash inflow in the amount of EUR 128,282k in the reporting period and are therefore EUR 393,421k above previous year's level. On the contrary, the net investments in intangible assets and property, plant and equipment are at EUR 37,067k and thus EUR 24,137k below previous year.

Cash flow from financing activities

In the reporting period, the cash outflow from financing activities amounts to EUR 150,909k (previous year: EUR 309,179k). The cash flow from financing activities is mainly due to the net repayment of loans to shareholders amounting to EUR 30,661k (previous year: EUR 67,117k) and the net repayment of bank loans and lease liabilities amounting to EUR 115,368k (previous year: EUR 238,407k). In addition there were payments for the acquisition of non-controlling interest in the amount of EUR 4,880k (previous year: EUR 3,655k).

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 2020:

in EUR '000	Balance as of 1 January 2020	Cash flows	non-cash changes				Balance as of 31.12.2020
			Acquisitions and disposals (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	740,012	- 90,983	543	- 7,379	16,479	-26,445	**632,227**
Non-current liabilities to banks, from bonds and other non-current financial liabilities	126,300	- 24,961	1,402	- 147	-	26,445	**129,039**
Current lease liabilities	45,021	- 51,384	37,544	- 788	4,858	3,882	**39,133**
Non-current lease liabilities	224,361	- 590	- 6,297	- 1,932	552	-3,882	**212,212**
Total	**1,135,694**	**- 167,918**	**33,192**	**- 10,246**	**21,889**	**0**	**1,012,611**

The non-cash acquisitions and disposals for liabilities to banks, from bonds and other financial liabilities mainly include movements from changes in the scope of consolidation. In addition, non-cash movements in lease liabilities are also presented as non-cash acquisitions and disposals.

The following table shows the changes of financial liabilities which are presented within the cash flow from financing activities during financial year 2019:

in EUR '000	Balance as of 1 January 2019	Cash flows	non-cash changes				Balance as of 31.12.2019
			Acquisitions and disposals (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	418,979	- 297,085	501,041	2,353	348	114,376	740,012
Non-current liabilities to banks, from bonds and other non-current financial liabilities	204,177	44,404	- 11,232	3,327	-	-114,376	126,300
Current lease liabilities	16,372	- 45,396	15,118	535	-	58,392	45,021
Non-current lease liabilities	18,201	- 1,376	27,656	861	-	179,019	224,361
Total	**657,729**	**- 299,453**	**532,583**	**7,076**	**348**	**237,411**	**1,135,694**

The column acquisitions and disposals (non-cash) includes a disposal from the deconsolidation of the FFT Group for current liabilities to banks, from bonds and other current financial liabilities in the amount of EUR 21,614k, for the disposal of non-current liabilities to banks, from bonds and other non-current financial liabilities in the amount of EUR 11,232k, for the disposal of current lease liabilities in the amount of EUR 3,372k as well as the disposal of non-current lease liabilities in the amount of EUR 2,275k.

34. Contingent liabilities and other financial obligations

Contingent liabilities

No provisions are made for contingent liabilities, because at the reporting date it is deemed unlikely that the risk would materialise.

in EUR '000	31.12.2020	of which to affiliated companies	31.12.2019	of which to affiliated companies
Liabilities from guarantees, bill and cheque guarantees	11,023	-	-	-
Other contingent liabilities	23,819	-	22,424	-
Contingent liabilities	**34,842**	**-**	**22,424**	**-**

As of 31 December 2020, liabilities from guarantees, bill and cheque guarantees consist of the guarantee obligation to a related party.

The other contingent liabilities in the amount of EUR 23,819k are performance guarantees (previous year: EUR 22,424k).

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	31.12.2020	31.12.2019
Obligations from non-cancellable leases	11,257	10,264
Purchase commitments and other purchase obligations	28,133	21,115
Miscellaneous other obligations	6,374	1,015
Other financial obligations	**45,764**	**32,394**

In case of fixed-term contracts, the expenses incurred for during the entire term are taken into account. In the case of unlimited contracts, the expenses for the following 12 months are included in the valuation.

The increase in obligations from non-cancellable leases, which are not accounted for as right-of-use asset and lease liabilities in accordance with IFRS 16, is primarily attributable to the segment Mining.

The change in obligations from purchase commitments and other purchase obligations is primarily due to an increase in the segment Mining, which is partly compensated by a decline in obligations in the segment Med Tech.

The increase in miscellaneous other obligations is mainly attributable to the segment Med Tech.

35. 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, trade payables, contract liabilities, 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 is 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 line items of the balance sheet as of 31 December 2020 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		664,253					664,253
Financial assets at amortized cost							
Loans		124,429					124,429
Trade receivables		234,905					234,905
Other receivables (financial instruments)		68,914					68,914
Financial assets at fair value through profit and loss							
Securities	92,844						92,844
Futures	-						-
Non-consolidated investments in affiliated companies / Other investments	438						438
Financial liabilities at amortized cost							
Trade payables						66,812	66,812
Liabilities to banks						182,163	185,054
Other interest-bearing liabilities						578,382	578,382
Other liabilities (financial instruments)						21,294	21,294
Lease liabilities						251,346	251,346
Financial liabilities at fair value through profit and loss							
Foreign exchange futures					720		720
Currency options					-		-

The following table shows the fair values and carrying amounts of the financial assets and financial liabilities included in the respective line items of the balance sheet as of 31 December 2019 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		527,886					527,886
Financial assets at amortized cost							
Loans		86,959					86,959
Trade receivables		320,699					320,699
Other receivables (financial instruments)		20,125					20,125
Financial assets at fair value through profit and loss							
Securities	258,500						258,500
Futures	23						23
Non-consolidated investments in affiliated companies / Other investments	436						436
Financial liabilities at amortized cost							
Trade payables						110,445	110,445
Liabilities to banks						237,510	237,510
Other interest-bearing liabilities						628,524	628,524
Other liabilities (financial instruments)						12,341	12,341
Lease liabilities						269,382	269,382
Financial liabilities at fair value through profit and loss							
Foreign exchange futures					278		278
Currency options					-		-

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 2020:

in EUR '000	Gross amounts re-ported in the balance sheet	Gross amounts offset in the balance sheet	Net amounts re-ported in the balance sheet	Amounts not offset in the balance sheet	Total net amount
Other financial assets					
Derivative financial assets		0		0	
Other financial liabilities					
Derivative financial liabilities	720	0	720	0	720

The following table shows the gross and net amounts of the other financial assets and other financial liabilities as of 31 December 2019:

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	23	0	23	- 23	
Other financial liabilities					
Derivative financial liabilities	278	0	278	- 23	255

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 2020 and 2019, 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 2020 nor 2019.

The table below shows the classification of the assets and liabilities measured at fair value as of 31 December 2020:

in EUR '000	Level 1	Level 2	Level 3	Total
Assets				
Non-consolidated investments in affiliated companies		438		438
Other investments	0			0
Securities measured at fair value through profit and loss (FVTPL)	92,844			92,844
Foreign exchange futures		-		-
Liabilities				
Foreign exchange futures		720		720
Currency options		-		-

In the reporting period 2020 (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 instruments in level 1 mainly include commercial papers for short-term investment, managed securities portfolios and individual equity investments.

The forward exchange futures and currency options allocated at level 2 relate to derivative financial instruments, which are not included in hedge accounting.

The table below shows the classification of the assets and liabilities measured at fair value as of 31 December 2019:

in EUR '000	Level 1	Level 2	Level 3	Total
Assets				
Non-consolidated investments in affiliated companies		437		437
Other investments	0			0
Securities measured at fair value through profit and loss (FVTPL)	258,500			258,500
Foreign exchange futures		23		23
Liabilities				
Foreign exchange futures		278		278
Currency options		-		-

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.

All expenses and income from expected credit losses are reported in a separate line of the income statement in accordance with 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 during financial year 2020 are as follows:

in EUR '000	From interest and dividends	From subsequent measurement			From disposal	Net gain or loss 2020
		Fair value	Currency translation	Allowances		
Financial Assets measured at amortised costs	- 417	-	- 14,059	- 16,767	-	- 31,243
Financial Assets at Fair Value through profit and loss	1,374	4,969	386	-	909	7,638
Financial Liabilities measured at amortised costs	- 3,033	-	- 2,859	-	-	- 5,892
Financial Liabilities at Fair Value through profit and loss	- 139	- 143	- 17	-	-	- 299
Net gain / loss	**-2,215**	**4,826**	**-16,549**	**-16,767**	**909**	**-29,796**

The gains or losses by measurement category according to IFRS 9 during financial year 2019 are as follows:

in EUR '000	From Interest and dividends	From subsequent measurement			From disposal	Net gain or loss 2019
		Fair value	Currency translation	Allowances		
Financial Assets measured at amortised costs	- 2,788	-	12,296	- 8,812	1,415	2,111
Financial Assets at Fair Value through profit and loss	-	- 2,869	0	- 21	99	- 2,791
Financial Liabilities measured at amortised costs	- 5,149	-	- 11,240	-	-	- 16,389
Financial Liabilities at Fair Value through profit and loss	114	1,015	- 1,015	-	51	165
Net gain / loss	**-7,823**	**-1,854**	**41**	**-8,833**	**1,565**	**-16,904**

Net interest income/expense

The total interest income and expense recognised within 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	**2020**	**2019**
Interest income	3,672	4,321
Interest expense	- 7,123	- 12,260
Net interest expense	**- 3,451**	**- 7,939**

36. 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 as of 31 December 2020:

Credit risk rating grades	Bucket 1	Bucket 2	Bucket 3	Total
A	149,045	255,841	7,428	412,314
B	1,297	0	44,624	45,921
C	0	3,514	0	3,514

The following overview presents the gross book values of loans, trade receivables and other receivables per defined credit risk rating class as of 31 December 2019:

Credit risk rating grades	Bucket 1	Bucket 2	Bucket 3	Total
A	62,692	320,183	6,981	389,856
B	23	0	44,483	44,506
C	0	6,023	0	6,023

In addition, orders and receivables are secured with letters of credit from major banks amounting to EUR 1,673k as of 31 December 2020 (previous year: EUR 1,872k). 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 333,203k (previous year: EUR 383,006k), contract assets in the amount of EUR 58,387k (previous year: EUR 92,135k) as well as other financial assets in the amount of EUR 217,711k (previous year: EUR 345,919k) reported in assets represent the maximum credit risk.

The maturity structure, the default rate on trade receivables and on contractual assets in accordance with IFRS 15, which are not individually impaired (bucket 3) is shown below per segment and derives from the gross book values to the net book value:

Valuation adjustments for trade receivables – Engineering as of 31 December 2020:

Overdue in days	not over-due	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	0.07%	2.73%	2.80%	2.81%	20.05%	26.29%	91.31%	
Gross book value net of payments received on account in kEUR	50,193	16,316	4,393	569	838	677	24,118	**97,104**
Expected credit loss over lifetime	-33	-445	-123	-16	-168	-178	-22,023	**-22,986**
Net book value after valuation adjustment in kEUR	**50,160**	**15,871**	**4,270**	**553**	**670**	**499**	**2,095**	**74,118**

Valuation adjustments for trade receivables – Mining as of 31 December 2020:

Overdue in days	not overdue	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	0.03%	0.31%	1.37%	1.76%	15.49%	-	100.00%	
Gross book value net of payments received on account in kEUR	93,803	5,134	582	227	839	0	3,331	**103,916**
Expected credit loss over lifetime	-26	-16	-8	-4	-130	0	-3,331	**-3,515**
Net book value after valuation adjustment in kEUR	**93,777**	**5,118**	**574**	**223**	**709**	**0**	**0**	**100,401**

Valuation adjustments for trade receivables – Med Tech as of 31 December 2020:

Overdue in days	not overdue	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	0.11%	0.29%	0.38%	0.51%	0.72%	2.09%	7.80%	
Gross book value net of payments received on account in kEUR	37,788	4,480	2,350	1,760	3,191	527	1,398	**51,494**
Expected credit loss over lifetime	-41	-13	-9	-9	-23	-11	-109	**-215**
Net book value after valuation adjustment in kEUR	**37,747**	**4,467**	**2,341**	**1,751**	**3,168**	**516**	**1,289**	**51,279**

Valuation adjustments for trade receivables – Aviation as of 31 December 2020:

Overdue in days	not overdue	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	0.02%	0.00%	0.29%	0.84%	0.00%	33.33%	-	
Gross book value net of payments received on account in kEUR	4,759	466	342	239	6	6	0	**5,818**
Expected credit loss over lifetime	-1	0	-1	-2	0	-2	0	**-6**
Net book value after valua-tion adjustment in kEUR	**4,758**	**466**	**341**	**237**	**6**	**4**	**0**	**5,812**

Valuation adjustments for contract assets – Engineering as of 31 December 2020:

Overdue in days	not overdue
Loss rate	0.07%
Gross book value net of payments received on account in kEUR	51,352
Expected credit loss over lifetime	-34
Net book value after valuation adjustment in kEUR	**51,318**

Valuation adjustments for contract assets – Mining as of 31 December 2020:

Overdue in days	not overdue
Loss rate	0.03%
Gross book value net of payments received on account in kEUR	6,945
Expected credit loss over lifetime	-2
Net book value after valuation adjustment in kEUR	**6,943**

Valuation adjustments for contract assets – Med Tech as of 31 December 2020:

Overdue in days	not overdue
Loss rate	0.00%
Gross book value net of payments received on account in kEUR	126
Expected credit loss over lifetime	0
Net book value after valuation adjustment in kEUR	**126**

Valuation adjustments for contract assets – Aviation as of 31 December 2020:

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**

The following picture emerged as of the previous year's reporting date:

Valuation adjustments for trade receivables – Engineering as of 31 December 2019:

Overdue in days	not overdue	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	0.06%	0.16%	0.34%	0.55%	0.89%	3.36%	16.93%	
Gross book value net of payments received on account in kEUR	90,750	16,524	4,129	1,999	6,071	15,241	1,926	**136,640**
Expected credit loss over lifetime	-50	-27	-14	-11	-54	-512	-326	**-994**
Net book value after valuation adjustment in kEUR	**90,700**	**16,497**	**4,115**	**1,988**	**6,017**	**14,729**	**1,600**	**135,646**

Valuation adjustments for trade receivables – Mining as of 31 December 2019:

Overdue in days	not overdue	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	1.67%	26.21%	81.33%	0.81%	1.44%	0.00%	0.00%	
Gross book value net of payments received on account in kEUR	111,147	7,635	2,528	2,977	3,119	347	164	**127,917**
Expected credit loss over lifetime	-1,859	-2,001	-2,056	-24	-45	0	0	**-5,985**
Net book value after valuation adjustment in kEUR	**109,288**	**5,634**	**472**	**2,953**	**3,074**	**347**	**164**	**121,932**

Valuation adjustments for trade receivables – Med Tech as of 31 December 2019:

Overdue in days	not overdue	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	0.06%	0.22%	0.40%	0.46%	0.52%	1.02%	1.54%	
Gross book value net of payments received on account in kEUR	34,359	5,919	1,497	5,216	2,881	391	1,362	**51,625**
Expected credit loss over lifetime	-21	-13	-6	-24	-15	-4	-21	**-104**
Net book value after valuation adjustment in kEUR	**34,338**	**5,906**	**1,491**	**5,192**	**2,866**	**387**	**1,341**	**51,521**

Valuation adjustments for trade receivables – Aviation as of 31 December 2019:

Overdue in days	not overdue	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	0.02%	0.07%	0.00%	0.00%	-	0.00%	-	
Gross book value net of payments received on account in kEUR	4,825	1,512	103	1	0	20	0	**6,461**
Expected credit loss over lifetime	-1	-1	0	0	0	0	0	**-2**
Net book value after valuation adjustment in kEUR	**4,824**	**1,511**	**103**	**1**	**0**	**20**	**0**	**6,459**

Valuation adjustments for contract assets – Engineering as of 31 December 2019:

Overdue in days	not overdue
Loss rate	0.06%
Gross book value net of payments received on account in kEUR	70,863
Expected credit loss over lifetime	-39
Net book value after valuation adjustment in kEUR	**70,824**

Valuation adjustments for contract assets – Mining as of 31 December 2019:

Overdue in days	not overdue
Loss rate	0.03%
Gross book value net of payments received on account in kEUR	21,244
Expected credit loss over lifetime	-6
Net book value after valuation adjustment in kEUR	**21,238**

Valuation adjustments for contract assets – Med Tech as of 31 December 2019:

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 – Aviation as of 31 December 2019:

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**

A detailed presentation of trade receivables and expected credit losses for the segment Holding / Consolidation is not presented for reasons of materiality.

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
2020	+ 100	- 342	- 342
	./. 100	342	342
2019	+ 100	- 1,431	- 1,431
	./. 100	1,431	1,431

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 US dollar, Canadian dollar, Australian dollar and South African Rand.

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 2020, material receivables and payables only exist in US dollar, Canadian dollar, Australian 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 2020 and 31 December 2019 are as follows:

in EUR '000	change in %	EUR/USD	EUR/CAD	EUR/AUD	EUR/ZAR
2020	+ 10	1,683	1,420	287	105
	./. 10	- 1,377	- 1,162	- 88	- 86
2019	+ 10	2,566	- 5,631	150	- 53
	./. 10	- 3,136	6,882	- 184	65

As of balance sheet date, for the currency risks in Canadian dollars partially offsetting exchange rate hedging transactions with different maturities and different hedging rates were concluded, for which no hedge accounting is applied. If there was a 10 % increase of the Canadian dollar against the Euro, this would have an effect of EUR 4,766k (previous year: EUR 4,049k), and if there was a 10 % decrease, the effect would be EUR -3,919k (previous year: EUR -4,338k).

In addition, as of the balance sheet date, there are translation risks resulting from the currency translation of Canadian dollar balances (as functional currency of Redpath Group) into ATON Group's reporting currency Euro. These only affect equity without effect on income statement (other comprehensive income) and amount to EUR -10,003k in the case of a +10 % appreciation of the Canadian dollar against the Euro and EUR 8,184k in the case of a -10 % depreciation of the Canadian dollar against the Euro.

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 **31. 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. The obligations under the credit clauses are subject to a permanent review, i.e. 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 2020, 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
2020	+ 100	928	928
	./. 100	- 928	- 928
2019	+ 100	2,585	2,585
	./. 100	- 2,585	- 2,585

There is no material concentration of risks in the ATON Group as of the 2020 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 adjusts it 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 the previous year, the dynamic debt ratios I and II are within the specified range:

in EUR '000	2020	2019
EBITDA	134,265	559,732
Liabilities to banks	182,163	237,510
Leasing liabilities	251,346	269,382
Other financial liabilities	1,471	531
	434,980	**507,423**
Cash and cash equivalents	664,253	527,886
First-degree net financial assets (-) / net financial liabilities (+)	**- 229,273**	**- 20,463**
Liabilities to shareholders/related parties	577,632	628,271
Investments in securities that can be liquidated at short notice	92,844	258,500
Second-degree net financial assets (-) / net financial liabilities (+)	**255,515**	**349,308**
Dynamic debt ratio I	**-**	**-**
Dynamic debt ratio II	**1.9**	**0.6**

Effect of hedging relationships

The Group partially hedges currency risks by forming hedging relationships (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.

Insofar as such hedging relationships are accounted for as cash flow hedges, the effectiveness of the hedging relationship is assessed using the hypothetical derivative method. This involves modelling a derivative for the underlying transaction that corresponds exactly to its payment profile. Changes in the value of this hypothetical derivative are compared with the changes in the value of the hedging transaction. A separate hedging transaction is concluded for each hedged cash flow. Since the payment characteristics of the hypothetical derivative and the hedging derivative are opposite, fluctuations in value offset each other exactly.

Neither as of reporting date nor on the previous year's reporting date does the Group have hedging instruments that are included in cash flow hedges and are therefore presented under hedge accounting. There were therefore no effects from hedge accounting in the consolidated income statement or in the consolidated statement of comprehensive income either in the financial year or in the previous year.

37. 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 Engineering, Mining, Med Tech and Aviation.

The services of the segment **Engineering** cover in particular the areas of engineering and plant construction for the automotive industry, along with other sectors of the mobility industry. In addition, this segment develops and offers new high-tech solutions for innovative products, primarily through the application of metallic coatings to almost all kind of surfaces.

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

The segment **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. In addition, activities aimed at developing inhalation therapies have been launched in this business segment.

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

The 33.34 % investment in OneFiber Interconnect Germany GmbH via ATON Digital Services GmbH is currently still presented in the segment Holding / Consolidation, as the business is currently ramped up.

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.

Since financial year 2020, Deilmann-Haniel Mining Systems is reported in within the segment Holding / Consolidation and no longer within the segment Mining, since this company currently no longer has any business activity and is expected to be used as a holding company in future.

The following table presents information for the Group's segments:

	Engineering		Mining		Med Tech	
in EUR '000	**2020**	**2019**	**2020**	**2019**	**2020**	**2019**
External revenue (net)	653,318	1,062,512	637,935	725,499	181,236	178,833
Internal revenue (net)	133	155	-	0	-	-
Revenue	**653,451**	**1,062,667**	**637,935**	**725,499**	**181,236**	**178,833**
Changes in inventories and own work capitalised	-2,984	-5,625	-406	- 758	-1,041	7,819
Gross revenue	**650,467**	**1,057,042**	**637,529**	**724,741**	**180,195**	**186,652**
Non-operating result	2,512	350,458	1,645	871	-1,722	1,084
Impairment losses / reversal of impairment losses on financial assets	21,372	2,198	-819	6,007	972	131
EBITDA	**24,735**	**441,693**	**100,849**	**102,913**	**28,058**	**29,203**
Depreciation and amortisation	70,624	77,884	67,005	63,689	8,919	7,001
Impairment losses	2,574	378	647	1,628	-	-
EBIT	**-48,463**	**363,431**	**33,197**	**37,596**	**19,139**	**22,202**
Financial result	-6,026	-7,064	-52,999	-80,290	-713	-447
thereof interest income	245	974	278	454	14	25
thereof interest expense	-6,307	-8,627	-6,387	-8,677	-699	-473
thereof result from at equity investments	53	0	-12,295	14,196	-	-
EBT	**-54,489**	**356,367**	**-19,802**	**-42,694**	**18,426**	**21,755**
Income taxes	-15,221	487	14,813	14,643	6,130	7,022
EAT	**-39,268**	**355,880**	**-34,615**	**-57,337**	**12,296**	**14,733**
EAT attributable to non-controlling interest	-10,152	2,679	-6,463	-2,307	-	-
EAT attributable to owners of the parent	**-29,116**	**353,201**	**-28,152**	**-55,030**	**12,296**	**14,733**

	Engineering		Mining		Med Tech	
in EUR '000	**31.12.2020**	**31.12.2019**	**31.12.2020**	**31.12.2019**	**31.12.2020**	**31.12.2019**
Segment assets	663,537	720,656	581,363	729,022	252,408	193,527
Segment liabilities	572,218	587,450	207,064	342,826	99,606	52,593

in EUR '000	Aviation 2020	Aviation 2019	Holding/Consolidation 2020	Holding/Consolidation 2019	ATON Group 2020	ATON Group 2019
External revenue (net)	63,672	73,317	688	140	1,536,849	2,040,301
Internal revenue (net)	18	-	- 151	- 155	-	-
Revenue	**63,690**	**73,317**	**537**	**-15**	**1,536,849**	**2,040,301**
Changes in inventories and own work capitalised	-	-	-	-	-4,431	1,436
Gross revenue	**63,690**	**73,317**	**537**	**-15**	**1,532,418**	**2,041,737**
Non-operating result	-59	104	-10,194	5,049	-7,818	357,566
Impairment losses / reversal of impairment losses on financial assets	185	- 277	59	- 35	21,769	8,024
EBITDA	**2,068**	**2,237**	**-21,444**	**-16,314**	**134,266**	**559,732**
Depreciation and amortisation	2,001	1,995	443	429	148,992	150,998
Impairment losses	-	-	-	-	3,221	2,006
EBIT	**67**	**242**	**-21,887**	**-16,743**	**-17,947**	**406,728**
Financial result	-899	855	-6,470	-651	-67,107	-87,597
thereof interest income	181	257	3,247	2,967	3,965	4,677
thereof interest expense	-532	-643	-16,535	-4,707	-30,460	-23,127
thereof result from at equity investments	- 355	12	- 622	-	-13,219	14,208
EBT	**-832**	**1,097**	**-28,357**	**-17,394**	**-85,054**	**319,131**
Income taxes	-247	139	-300	703	5,175	22,994
EAT	**-585**	**958**	**-28,057**	**-18,097**	**-90,229**	**296,137**
EAT attributable to non-controlling interest	-	-	-	-	-16,615	372
EAT attributable to owners of the parent	**-585**	**958**	**-28,057**	**-18,097**	**-73,614**	**295,765**

in EUR '000	Aviation 31.12.2020	Aviation 31.12.2019	Holding/Consolidation 31.12.2020	Holding/Consolidation 31.12.2019	ATON Group 31.12.2020	ATON Group 31.12.2019
Segment assets	38,535	44,508	854,820	895,345	2,390,663	2,583,058
Segment liabilities	32,958	38,346	571,010	605,974	1,482,856	1,627,189

Due to the diversification of the ATON Group, there are no significant dependencies from individual customers.

38. Auditor's fees

For the services provided by Deloitte GmbH Wirtschaftsprüfungsgesellschaft the following fees have been recognised as expenses:

in EUR '000	2020	2019
Audits	678	799
Other attestation services	32	-
Tax consultation services	10	-
Other services	30	2
Total	**750**	**801**

39. 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 revenue and income realised by the ATON Group with related parties breaks down as follows:

in EUR '000	31.12.2020 Revenue, other income and interest	31.12.2020 Receivables outstanding	31.12.2019 Revenue, other income and interest	31.12.2019 Receivables outstanding
Investments accounted for using the equity method	17,550	7,772	28,054	6,256
Non-consolidated subsidiaries	3,350	468	7,264	3,653
Other related parties	2,834	123,106	3,215	83,549
Shareholders	9	53,055	7	4,549
Total	**23,743**	**184,401**	**38,540**	**98,007**

Income with companies accounted for using the equity method and income with non-consolidated subsidiaries primarily result from service revenues and from the result from equity accounting.

Income with other related parties essentially results from interest income.

The receivables from other related parties mostly include loan receivables and borrowings.

The receivables from shareholders mainly result from the receivables arising from the profit and loss transfer agreement with ATON 2 GmbH.

The volume of the ATON Group's expenses with related parties and outstanding liabilities breaks down as follows:

in EUR ’000	31.12.2020 Purchased merchan-dise/services, other operating expenses and interest	31.12.2020 Liabilities outstanding	31.12.2019 Purchased merchan-dise/services, other operating expenses and interest	31.12.2019 Liabilities outstanding
Investments accounted for using the equity method	102,622	12,034	84,996	8,287
Non-consolidated subsidiaries	387	14	0	31
Other related parties	81	632	362	20,631
Shareholders	16,359	577,000	3,263	607,661
Total	**119,449**	**589,680**	**88,621**	**636,610**

Expenses with companies, which are accounted for using the equity method, primarily result from the impairment of the shares of Murray & Roberts and the results of the investments.

Expenses with non-consolidated subsidiaries mainly result from the purchase of services.

Expenses with other related parties include interest expenses.

Expenses with shareholders consist primarily of interest expenses with ATON 2 GmbH.

The liabilities to related parties mainly include loans and borrowings.

The liabilities to shareholders result from the liability from the shareholder loan received from 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 3,458k in the financial year (previous year: 2,549k). Besides, the key management personnel received a variable additional remuneration in the amount of EUR 1,500 (previous year: EUR 750k).

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.

40. List of shareholdings

Concerning the list of shareholdings, please refer to the appendix, which is an integral part of these notes.

41. Events after the balance sheet date

On 19 January 2021, a further capital increase took place at ecoCOAT GmbH, Allershausen. As a result of ATON’s additional paid-in capital of EUR 900k, ATON GmbH's share has now increased to 37.5 %.

With effect from 12 March 2021, a capital increase took place at Aveng Ltd., Boksburg / South Africa. As ATON did not make use of the allocated subscription rights, the share in Aveng Ltd. is diluted to 2.37 %.

Several companies within the EDAG Group were targeted by a cyber-attack in the night of 12 March to 13 March 2021. In accordance with the emergency protocol, all affected IT network systems were shut down immediately. In line with protocol, the IT task force has engaged all necessary internal and external technical experts to successfully avert further assaults and gradually restore normal operations. At the same time, the relevant authorities and data forensic specialists are investigating, to determine the origin, scope and extents of the attack and to avert further assaults. Therefore, at this point in time, the possible damage cannot yet be reliably estimated.

42. 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, 30 April 2021

ATON GmbH
Management Board

[original German version signed by:]

Georg Denoke | Dr. Wolfgang Salzberger

List of shareholdings (direct and indirect) of ATON GmbH

As of 31 December 2020

No.	Company	City	Country	Share in % direct	Share in % indirect	Currency	Equity as per 31 Dec 2020	Net Result 2020
I. Affiliated Companies								
1. Consolidated Companies								
a) Domestic companies								
1.	AspiAir GmbH	Munich	Germany	100.0		kEUR	604	- 1,165
2.	ATON Digital Services GmbH	Munich	Germany	100.0		kEUR	11,480	- 39
3.	ATON - Oldtimer GmbH	Munich	Germany	100.0		kEUR	17,194	- 1,844
4.	DC Aviation GmbH	Stuttgart	Germany	100.0		kEUR	5,577	- 585
5.	Deilmann-Haniel Mining Systems GmbH	Munich	Germany	100.0		kEUR	- 25,776	- 507
6.	EDAG aeromotive GmbH (until 6th March 2020: BFFT aeromotive GmbH)	Gaimersheim	Germany		100.0	kEUR	791	206
7.	EDAG Akademie GmbH (until 3rd February 2020: Rücker Akademie GmbH)	Wiesbaden	Germany		100.0	kEUR	213	0
8.	EDAG Engineering GmbH	Wiesbaden	Germany		100.0	kEUR	248,759	0
9.	EDAG Engineering Holding GmbH	Munich	Germany		100.0	kEUR	32,681	- 29,744
10.	EDAG Production Solutions GmbH & Co. KG	Fulda	Germany		100.0	kEUR	7,018	- 6,691
11.	Redpath Deilmann GmbH (previously: Deilmann-Haniel GmbH)	Dortmund	Germany		100.0	kEUR	63,910	3,343
12.	Ziehm Imaging GmbH	Nuremberg	Germany	100.0		kEUR	138,213	11,296
b) Foreign Companies								
13.	ATON Austria Holding GmbH	Going am Wilden Kaiser	Austria	100.0		kEUR	509,330	- 9,948
14.	CKGP/PW & Associates, Inc.	Troy	USA		100.0	kUSD	2,868	11
15.	Deilmann-Haniel Schachtostroj OOO	Berezniki	Russia		100.0	kCAD	35,225	7,357
16.	EDAG do Brasil Ltda.	Sao Bernardo do Campo	Brazil		100.0	kBRL	16,317	- 2,023
17.	EDAG Engineering and Design (Shanghai) Co. Ltd.	Shanghai	China		100.0	kCNY	40,554	1,522
18.	EDAG Engineering CZ spol. s.r.o.	Mladà Boleslav	Czech Republic		100.0	kCZK	8,109	- 11,091
19.	EDAG Engineering Group AG	Arbon	Switzerland		74.7	kEUR	387,580	- 2,042
20.	EDAG Engineering Ltd.	Markyate	Great Britain		100.0	kGBP	- 736	70
21.	EDAG Engineering Polska Sp.z.o.o.	Warszawa	Poland		100.0	kPLN	7,199	746
22.	EDAG Engineering Scandinavia AB (until 25th January 2020: EDAG Engineering AB)	Goteborg	Sweden		100.0	kSEK	11,889	4,010
23.	EDAG Engineering Schweiz GmbH	Arbon	Switzerland		100.0	kCHF	1,298	452
24.	EDAG Engineering Schweiz Sub-Holding AG	Arbon	Switzerland		100.0	kEUR	476,208	14,361
25.	EDAG Holding Sdn. Bhd. Malaysia	Shah Alam	Malaysia		100.0	kMYR	1,420	23
26.	EDAG Hungary Kft.	Györ	Hungary		100.0	kEUR	2,506	254
27.	EDAG Inc.	Troy	USA		100.0	kUSD	8,908	- 1,260
28.	EDAG Italia S.R.L.	Torino	Italy		100.0	kEUR	2,126	821
29.	EDAG Japan Co. Ltd.	Yokohama	Japan		100.0	kJPY	57,000	- 21,579
30.	EDAG Mexico S.A. de C.V.	Puebla	Mexico		100.0	kMXN	54,196	- 11,391
31.	EDAG Netherlands B.V.	Helmond	Netherlands		100.0	kEUR	914	252
32.	EDAG Production Solutions CZ s.r.o.	Mladà Boleslav	Czech Republic		100.0	kCZK	12,466	- 23,281
33.	EDAG Production Solutions India Priv. Ltd.	Gurgaon	India		100.0	kINR	231,303	7,102
34.	EDAG SERVICIOS Mexico S.A. de C.V.	Puebla	Mexico		100.0	kMXN	10	0
35.	EDAG Technologies India Priv. Ltd.	Gurgaon	India		100.0	kINR	48,459	- 4,392
36.	EDAG Turkey Mühendislik Limited Sirketi	Gebze/Kocaeli	Turkey		100.0	kTRY	2,064	- 936

No.	Company	City	Country	Share in % direct	Share in % indirect	Currency	Equity as per 31 Dec 2020	Net Result 2020
b) Foreign Companies								
37.	Eroc Holdings Pty Limited	Brisbane	Australia		100.0	kCAD	5	0
38.	HRM Engineering AB	Goteborg	Sweden		100.0	kSEK	9,756	0
39.	J.S. Redpath Peru SAC	Lima	Peru		100.0	kCAD	14	85
40.	Les Entreprises Mineres Redpath Ltee.	North Bay	Canada		100.0	kCAD	79	0
41.	OOO EDAG Production Solutions RU	Kaluga	Russia		100.0	kRUB	- 3,602	- 3,942
42.	OrthoScan Inc.	Scottsdale	USA		100.0	kUSD	21,550	3,008
43.	PT Redpath Indonesia	Jakarta	Indonesia		100.0	kCAD	36,809	18,022
44.	Redpath Africa Limited	Ebene	Mauritius		100.0	kCAD	4,457	- 2,539
45.	Redpath Argentina Construcciones S.A.	Buenos Aires	Argentina		100.0	kCAD	- 11	- 125
46.	Redpath (Australia) Holdings Pty Limited	Brisbane	Australia		100.0	kCAD	13,728	- 3,046
47.	Redpath Australia Coal Pty Ltd.	Brisbane	Australia		100.0	kCAD	- 145	- 24
48.	Redpath Australia Pty Limited	Brisbane	Australia		100.0	kCAD	22,083	- 481
49.	Redpath Canada Limited	North Bay	Canada		100.0	kCAD	135,239	37,578
50.	Redpath Chilena Construcciones Y Cia. Limitada	Santiago	Chile		100.0	kCAD	- 2,031	- 10,163
51.	Redpath Contract Services Pty Ltd.	Brisbane	Australia		100.0	kCAD	25,622	2,914
52.	Redpath Deilmann Belschachtostroj	Soligorsk	Belarus		99.9	kCAD	501	84
53.	Redpath Deilmann UK Limited	Birmingham	Great Britain		100.0	kCAD	0	0
54.	Redpath-Deilmann d.o.o Beograd	Belgrade	Republic of Serbia		100.0	kCAD	0	0
55.	Redpath Global Mobility Services Inc.	North Bay	Canada		100.0	kCAD	- 405	61
56.	Redpath Greece Private Company	Athens	Greece		100.0	kCAD	372	- 38
57.	Redpath Guatemala Construcciones S.A.	Guatemala	Guatemala		100.0	kCAD	16	92
58.	Redpath KR LLC	Bishkek	Kirgizstan		100.0	kCAD	0	0
59.	Redpath Mexicana Construcciones SA de CV	Mexico City	Mexico		100.0	kCAD	3	0
60.	Redpath Mining (S.A.) (Pty.) Ltd.	Johannesburg	South Africa		74.0	kCAD	- 42,153	- 9,551
61.	RGP Deilmann d.o.o.	Belgrade	Republic of Serbia		100.0	kCAD	0	0
62.	Redpath Mining Inc.	North Bay	Canada		100.0	kCAD	63,216	- 33,347
63.	Redpath Mongolia LLC	Ulaanbaatar	Mongolia		100.0	kCAD	10,816	5,337
64.	Redpath Philippines Inc.	Makati	Philippines		100.0	kCAD	0	0
65.	Redpath PNG Limited	Port Moresby	Papua New Guinea		100.0	kCAD	1,148	- 56
66.	Redpath Raiseboring Limited	North Bay	Canada		100.0	kCAD	77,115	7,704
67.	Redpath Rig Resources JV Limited	Kitwe	Zambia		100.0	kCAD	- 25,018	- 23,437
68.	Redpath USA Corporation	Sparks	USA		100.0	kCAD	19,610	3,196
69.	Redpath Venezolana C.A.	El Callao	Venezuela		100.0	kCAD	0	0
70.	Redpath Zambia Limited	Lusaka	Zambia		74.0	kCAD	3,871	- 1,503
71.	Rücker Lypsa, S.L.U.	Cornellá de Llobregat	Spain		100.0	kEUR	10,431	- 1,272
72.	Therenva SAS	Rennes	France		100.0	kEUR	2,274	308
73.	Triple S Insurance Company Limited	Bridgetown	Barbados		100.0	kCAD	42,711	8,184
74.	UnderAus Group Holdings Pty Limited	Brisbane	Australia		100.0	kCAD	6,900	0
75.	Ziehm Imaging Austria GmbH	Tulln	Austria		100.0	kEUR	301	130
76.	Ziehm Imaging Finnland (OY)	Hinthaara	Finland		100.0	kEUR	336	50
77.	Ziehm Imaging Japan KK	Tokyo	Japan		100.0	kJPY	10,678	2,309
78.	Ziehm Imaging Sarl	Villejust	France		100.0	kEUR	263	91
79.	Ziehm Imaging Singapore Pte. Ltd. (PTE)	Singapore	Singapore		100.0	kSGD	817	148
80.	Ziehm Imaging Spain S.L.U.	Valencia	Spain		100.0	kEUR	234	24
81.	Ziehm Medical Do Brasil	Sao Paulo	Brazil		100.0	kBRL	- 174	581
82.	Ziehm Medical (Shanghai) Co. Ltd.	Shanghai	China		100.0	kCNY	13,751	8,213
83.	Ziehm Imaging Srl a Socio Unico (SRL)	Reggio Nell' Emilia	Italy		100.0	kEUR	1,824	605

No.	Company	City	Country	Share in % direct	Share in % indirect	Currency	Equity as per 31 Dec 2020	Net Result 2020
2. Non-Consolidated affiliates, which are measured at fair value								
a) Domestic Companies								
84.	EDAG-Beteiligung GmbH	Fulda	Germany		100.0	kEUR	38	2
85.	EDAG Production Solutions Verwaltungs GmbH	Fulda	Germany		100.0	kEUR	19	2
86.	Parkmotive GmbH	Fulda	Germany		100.0	kEUR	19	- 1
b) Foreign companies								
87.	AspiAir US Inc.	Wilmington	USA		100.0	kEUR	0	0
88.	DC Aviation Holding Ltd.	Birkirkara	Malta		99.99	kEUR	- 362	- 16
89.	DC Aviation Ltd.	Luqa	Malta		99.8	kEUR	25	- 93
90.	Distinct Crew Management Ltd.	Luqa	Malta		99.8	kEUR	- 126	50
II. Joint Ventures - Equity-method investments								
1. Consolidated Companies								
a) Domestic Companies								
91.	Arbeitsgemeinschaft BS Schachtanlage ASSE	Mühlheim an der Ruhr	Germany		50.0	kEUR	2,432	125
92.	Arbeitsgemeinschaft Burg Altena	Schmallenberg	Germany		50.0	kEUR	- 440	0
93.	Arbeitsgemeinschaft Konrad Versatzaufbereitung Los 1	Dortmund	Germany		50.0	kEUR	2,495	1,050
94.	Arbeitsgemeinschaft Sanierung Schacht Zielitz 1	Mühlheim an der Ruhr	Germany		50.0	kEUR	57	- 65
95.	Arbeitsgemeinschaft Neuhof Ellers	Dortmund	Germany		50.0	kEUR	0	0
96.	Arbeitsgemeinschaft Schacht Konrad 1	Mühlheim an der Ruhr	Germany		50.0	kEUR	6,254	249
97.	Arbeitsgemeinschaft Schacht Konrad 2	Mühlheim an der Ruhr	Germany		50.0	kEUR	12,083	2,455
98.	Arbeitsgemeinschaft Schacht Konrad Notfahreinrichtung	Dortmund	Germany		50.0	kEUR	- 10	0
99.	Arbeitsgemeinschaft Schacht Borth 1	Saarbrücken	Germany		50.0	kEUR	0	0
100.	Arbeitsgemeinschaft Schächte Bergwerk Siegmundshall	Mühlheim an der Ruhr	Germany		50.0	kEUR	129	0
101.	Arbeitsgemeinschaft Vorbausäule Schacht Neurode	Dortmund	Germany		50.0	kEUR	0	- 1,407
102.	Arbeitsgemeinschaft Wasserhaltung Reden	Dortmund	Germany		50.0	kEUR	0	0
103.	ARGE Einrichtung Schachtförderanlage Konrad 2	Mühlheim an der Ruhr	Germany		50.0	kEUR	0	0
104.	ARGE Wasseraufbereitung Reden 4/5	Saarbrücken	Germany		33.3	kEUR	0	0
105.	ecoCOAT GmbH	Allershausen	Germany	25.2		kEUR	- 72	- 260
106.	Joint Venture Freezing Comol-5	Dortmund	Germany		60.0	kEUR	0	4
107.	OneFiber Interconnect Germany GmbH	St. Wendel	Germany		33.3	kEUR	3,715	- 1,747
b) Foreign Companies								
108.	Associated Mining Construction Inc.	Saskatchewan	Canada		50.0	kCAD	5,815	0
109.	Dayan Contract Mining LLC	Ulaanbaatar	Mongolia		49.0	kCAD	217	87
110.	DC Aviation Al Futtaim LLC	Dubai	U.A.E.		49.0	kEUR	- 7,861	- 726
111.	DC Aviation G-OPS S.A.S.	Paris	France		50.0	kEUR	30	0
112.	Deilmann-Haniel & Drillcon Iberia ACE	Braga	Portugal		50.0	kEUR	0	- 52
113.	Innu-Inuit Redpath Limited Partnership	North Bay	Canada		33.3	kCAD	4,645	2,914
114.	TRL Mining Construction LP	Regina	Canada		33.0	kCAD	20,364	6,213

III. Investments in associates and investment measured at fair value

1. Consolidated Companies

a) Domestic Companies

115.	EDAG Werkzeug + Karosserie GmbH	Fulda	Germany		49.0	kEUR	21,312	1,105

a) Domestic Companies

116.	Murray & Roberts Holdings Ltd. *	Bedfordview	South Africa		43.8	kZAR	50,920,000	- 687,000
117.	Redpath Thonket Mining Services Ghana Limited	Accra	Ghana		49.0	kCAD	0	0

1. Non-Consolidated Companies

a) Foreign Companies

118.	Aveng Ltd. *	Boksburg	South Africa		7.0	kZAR	2,102,000	- 508,000

* Figures from the interim consolidated financial statements, as Murray & Roberts Holdings Ltd. and Aveng Ltd. 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, 2020.

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

Audit Opinions

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 2020**,** 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 2020, 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 2020.

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

- the accompanying consolidated financial statements comply in all material respects, with the International Financial 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 2020, and of its financial performance for the financial year from 1 January to 31 December 2020, 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, 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 Audit Opinions

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 audit opinions on the consolidated financial statements and 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 IFRS 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, 30 April 2021

Deloitte GmbH
Wirtschaftsprüfungsgesellschaft

[original German version signed by]

Signed: André Bedenbecker Wirtschaftsprüfer [German Public Auditor]	Signed: Felix Mantke Wirtschaftsprüfer [German Public Auditor]