ATON 2 GmbH, Munich

GROUP MANAGEMENT REPORT AS OF 31 DECEMBER 2023

(Translation – the German text is authoritative)

Contents

I. GROUP PROFILE

1. Business segments

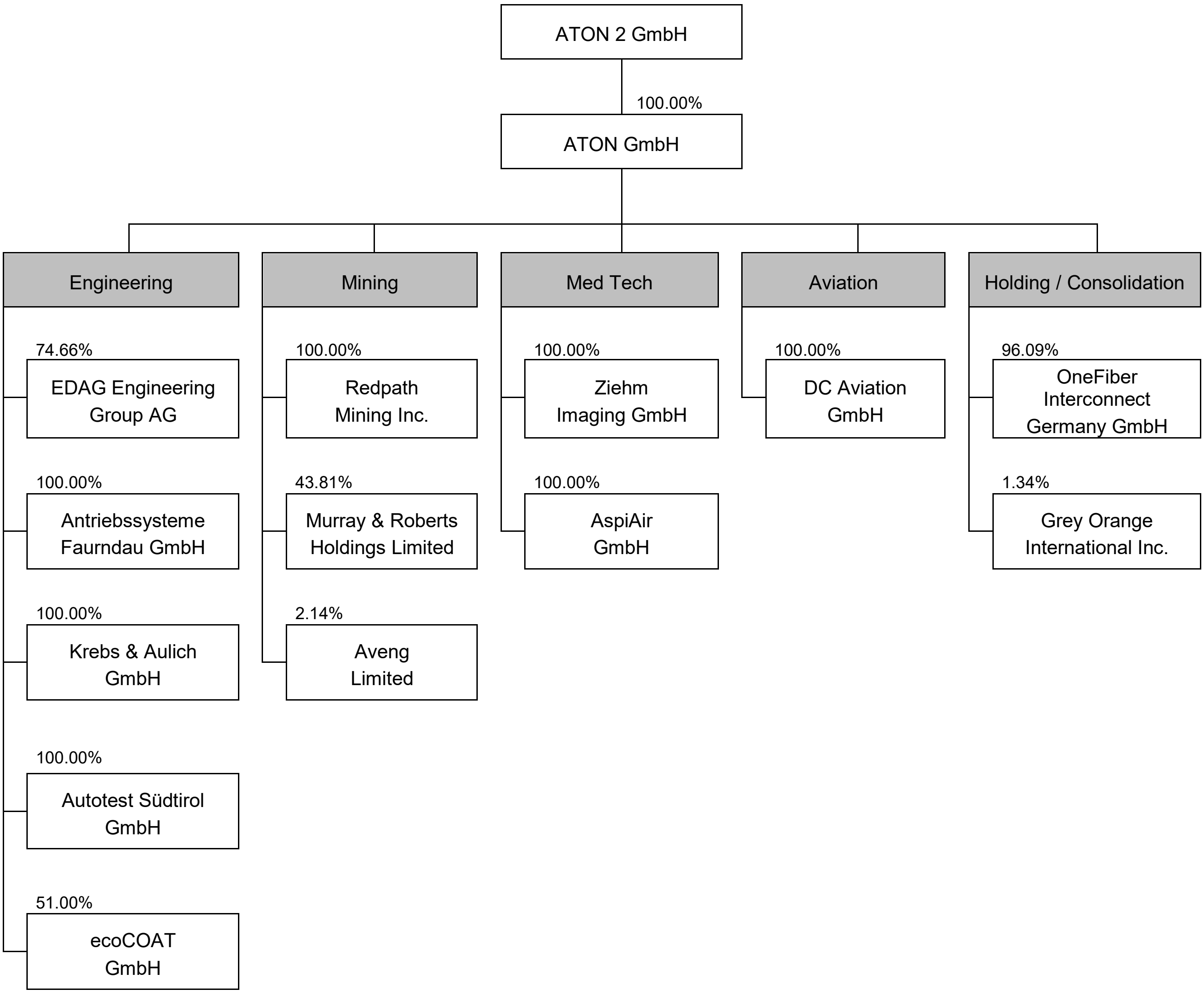
The ATON Group is a group of internationally operating companies in the business segments Engineering, Mining, Med Tech and Aviation.

The ATON Group comprises the ATON 2 GmbH, a corporation established under German law, and the following investments:

	31.12.2023	31.12.2022
Subsidiaries	94	92
thereof consolidated	87	85
Joint Ventures	28	23
thereof consolidated using the equity method	28	23
Investments in associates and investments measured at fair value	8	8
thereof consolidated using the equity method	3	3
Total	**130**	**123**
thereof consolidated	**118**	**111**

The ATON Group continues to focus on the development of the core competencies in the individual business segments. Strategic investments, the merging of similar activities and the use of synergies as well as the disposal of non-core activities shall enhance the companies' competitive advantage, optimise the use of existing resources and thus further increase value added.

The organisational structure of the ATON Group with the operating units allocated to the relevant business segments is as follows as of 31 December 2023:



The range of services offered by the **segment Engineering** includes 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 innovative and complex components, high-performance electric motors and new intelligent solutions for innovative products, primarily through the application of metallic coatings to virtually all surfaces.

The **EDAG** Group is one of the largest independent engineering partners to the automotive industry for the development of vehicles, derivatives, modules and production facilities. The business is organised in the following divisions: Vehicle Engineering, Production Solutions and Electrics / Electronics. Based on strong roots in vehicle and production plant development, the Group has established a leading international position as an innovative partner to the global mobility industry by developing the Electrics / Electronics division and expertise in the development of complete vehicles. EDAG's global network ensures its local presence for its customers. EDAG works according to the principle of production-optimised solutions, which means that development results are always in line with current production requirements. This comprehensive expertise allows EDAG, as an independent engineering expert, to support its customers from the initial idea to design, through production development and prototyping, to turnkey production systems. In addition, as one of the technology and innovation leaders, the Group operates competence centres for pioneering future technologies in the automotive sector: lightweight construction, electromobility, car IT, integral safety and new production technologies. Change is a constant companion and driver of the company's development. By merging and expanding its cross-divisional expertise and capacities in the areas of software and digitalisation, the company is taking the next logical evolutionary step on the road to the mobility of the future.

Antriebssysteme Faurndau GmbH's core competencies are the development, manufacture and sale of standard and customised special drives with high dynamics, maximum rotational acceleration and low mass moments of inertia in synchronous and asynchronous technology (high-performance electric motors). In addition, the associated service is offered, which includes worldwide customer service, spare parts sales, maintenance and repair of motors, converters, power converters and encoder systems as well as electrically rotating systems of all types. On the customer side, the focus is on the automotive sector (test stand technology), the plastics, packaging and paper industries, and general mechanical engineering.

Krebs & Aulich GmbH is calculating, designing, constructing and building electrical machines with the highest efficiencies and for special requirements and, like Antriebssysteme Faurndau GmbH, is active in the field of high-performance electric motors. On the product side, the focus is on the areas of test stand engines for the automotive industry and generators in the field of hydroelectric power. In the field of servo motors the company also provides small batch series of engines for primary flight control actuators as well as built-in engines for machine tools and servo motors for the aerospace industry.

Autotest Südtirol GmbH develops and manufactures innovative and complex components for the international automotive industry. As a company specialised in this field, technical plastic and metal components are realised for vehicles of well-known car brands. The company also supervises the manufacturing of the necessary tools throughout the entire development process, coordinates the sampling and brings the tools to series production readiness.

ecoCOAT GmbH develops new intelligent solutions for innovative products and thereby specialises in a coating technology that can be used to bond metals and polymers to almost any surface in the atmosphere. The first product, that has been launched in the meantime are cleaning pads for floor care and maintenance under the brand FloorZilla.

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

The **Redpath** Group is a global mining contractor, providing full services to the mining industry, including shaft sinking, shaft equipment repair and rehabilitation, underground mine development and construction, contract mining, surface plant construction, raiseboring, mechanised raising and technical services supporting the design management and construction of all underground mine infrastructure. Redpath Group continues to develop its core services of shaft sinking and mine development, expanding its raisebore fleet, which now includes all relevant sizes, putting the Group in a very strong competitive position in the global raisebore market. In addition, Redpath is pursuing the development of mining equipment automation to apply this technology to projects.

The **Murray & Roberts** Group, in which ATON holds a 43.81 % stake, is a globally operating company for engineering, construction and underground mining services. The range of services covers the areas of oil & gas, underground mining and power & water. The Group applies its capabilities throughout the project life cycle to optimise its clients' fixed capital investments. The Group achieves this by focusing its expertise and capacity on delivering sustainable solutions for project engineering, procurement, construction, commissioning, operations and maintenance. The investment is accounted for using the equity method.

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

The **Ziehm** Group specialises in the development, production and worldwide marketing of mobile X-ray-based system solutions for imaging (so-called C-arms). Essentially, this involves two main products. Firstly, these are the Ziehm full size C-arm systems, which are used in spine surgery, orthopaedics, traumatology, vascular surgery, interventional radiology, cardiology and cardiac surgery as well as other clinical applications. The focus on intraoperative imaging and innovative X-ray technologies is consistently implemented through high investments in research. The available hardware and software features, which have also been further enhanced through the acquisition of Therenva SAS, support easy communication and improve process efficiency in the OR. The second main product is the Orthoscan mini C-arm systems, where innovative product solutions for orthopaedic imaging are developed, manufactured, distributed and services are offered to the customers worldwide. The mini C-arm is used for fluoroscopic imaging of the extremities in orthopaedic surgery and for digital diagnostic imaging in medical practices.

AspiAir GmbH is focused on the development of inhalation therapies.

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

As an operator and charter provider including aircraft technology, **DC Aviation GmbH** concentrates on the premium segment of private jets, especially for medium and long-haul flights. In addition to the company head-quarters in Stuttgart with its own terminal and hangar, the company has another hangar with an exclusive VIP lounge at the Oberpfaffenhofen location near Munich since 2022. The international presence is strengthened by a subsidiary in Malta and the joint ventures in Dubai (DC Aviation Al Futtaim LLC) and Nice (DC Aviation G-OPS SAS) with local infrastructure at these airports. 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 not operated by DC Aviation. As of 31 December 2023, the DC Aviation Group has 29 aircraft under contract as operators.

The **segment Digital Services**, which is currently presented within the segment ‘Holding / Consolidation’ is expected to be further expanded within the ATON Group in the future. It includes the investments in OneFiber Interconnect Germany GmbH and Grey Orange International Inc.

The objective of **OneFiber Interconnect Germany GmbH**, held by **ATON Digital Services GmbH**, is to build a national, homogeneous, highly secure fibre-optic network accessible on public land along German railway lines. The company is currently presented within the segment Holding / Consolidation.

In addition, the ATON Group holds an interest in **Grey Orange International Inc.** via ATON Digital Services GmbH. The Company designs, manufactures and deploys advanced robotics systems for automation in warehouses, distribution and fulfilment centres.

2. Management

ATON 2 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 2 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

Some of the Group's companies operate in technological fields that are constantly evolving. These mainly include the Ziehm Group, the EDAG Group, the Redpath Group, but also smaller entities like AspiAir GmbH and ecoCOAT GmbH. 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. Expenditure for research and development recognised in the income statement amount to EUR 18.8 million (previous year: EUR 20.8 million). In addition, there are capitalised development costs of EUR 6.2 million (previous year: EUR 4.0 million) for new and further development of products and technologies.

II. MACROECONOMIC DEVELOPMENT

Amid a barrage of shocks during the past four years, the global economy has proved to be very resilient. Major economies are emerging mostly unscathed after the fastest rise in interest rates in 40 years - without the usual negative impacts of steep unemployment rates or financial crashes. Global inflation is being tamed without tipping the world into a recession. It is rare for countries to bring inflation rates down without triggering a downturn, but this time a “soft landing” seems increasingly possible (see World Bank Group: Global Economic Prospects as of January 2024).

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

in %	2023	2022	2021	2020	2019
World	2.7	3.1	6.2	- 2.9	2.7
Europe	0.6	3.7	6.5	- 5.8	1.7
Germany	- 0.2	1.9	3.1	- 4.2	1.1
North America	2.3	2.1	5.8	- 2.4	2.4
South America	2.2	4.0	7.1	- 6.6	0.8
Asia/Pacific	4.5	3.3	6.6	- 0.7	4.0
China	5.4	3.0	8.5	2.2	6.0
Middle East	1.0	7.0	4.6	- 4.4	1.2
Africa	3.1	3.9	4.7	- 2.2	2.6

Source: Global Insight World Overview as of 15 January 2024.

According to the World Bank, the aggregate growth in advanced economies was resilient for most of 2023, slowing less than previously expected. This is also largely reflected in the development in the United States / North America, where consumer spending, in particular, remained robust and fiscal policy was expansionary. In North America, growth was resilient last year, picking up to an estimated 2.3 %, despite rising borrowing rates and tightening credit conditions. Consumer spending remained solid, supported by accumulated savings, tight labour markets, and a boost to disposable incomes from one-off tax adjustments. Activity was also supported by an expansionary impulse from fiscal policy. Tightness in the U.S. labour market has been gradually easing. Job openings have declined, employment growth has steadily slowed, and wage growth has subsided, despite the unemployment rate remaining near historic lows.

In Europe, growth slowed sharply in 2023, to an estimated 0.6 %, as high energy prices - largely related to Russia’s invasion of Ukraine - weighed on household spending and firms’ activity, particularly in manufacturing. The downturn in late 2023 reflected broadening weakness in the economy, which extended to the services sector. This was partially attributed to the ongoing decline in exports amid deteriorating export price competitiveness and tepid external demand.

The German economy has been treading water since the beginning of 2023. It is true that the inflation rate has eased over the course of the year and the increase in wage income has accelerated compared to the previous year. However, the recovery in private consumption has so far failed to materialise, partly because some of the increase in purchasing power has been saved. Global trade in goods and global industrial production have also failed to provide any impetus. Central banks dampened the economy in many places to combat inflation, and in the course of the recovery from the coronavirus crisis, services in particular were on the upswing worldwide. As a result, German exports continued their downward slide. The European Central Bank's interest rate hikes also triggered a slowdown in the German property market, which was overheated in some areas. As a result, investments in residential construction continued to decline until recently. Finally, production in the chemical industry remains at the low level to which it was reduced at the end of 2022 in the wake of the energy crisis. The job cuts there indicate that, despite the fact that gas and electricity prices for major industrial customers have fallen again in the meantime, a structural change has begun, as a result of which parts of energy-intensive production have been relocated to other locations. The only strong expansionary impetus came from government investment. The procurement of defence equipment from the Bundeswehr special fund was particularly noticeable here. Overall, the economy cooled noticeably in 2023 and the recovery that was originally expected for the second half of the year failed to materialise, meaning that the German economy is expected to contract by -0.2 % in 2023. Companies are increasingly complaining about insufficient demand for goods and services. The high order backlogs, particularly in the manufacturing and construction sectors, melted away as new orders fell and existing orders were cancelled. In addition, supply-side obstacles to production continued to lose importance. Although the demographically induced labour shortage continues, intermediate products are now as readily available in many areas as they were before the outbreak of the coronavirus crisis. The strengthening of production capacities and the simultaneous decline in demand have contributed to the fact that overall German production capacities are underutilised (see ifo Institute: Economic Forecast Winter 2023).

China's economy grew 5.4 % in 2023, slightly more than the official target, but, according to Reuters, the recovery was far shakier than many analysts and investors expected, with a deepening property crisis, mounting deflationary risks and tepid demand casting a pall over the outlook for this year. Expectations that the world's second-largest economy would stage a strong post-COVID bounce quickly fizzled as the year progressed, with weak consumer and business confidence, mounting local government debts and slowing global growth sharply weighing on jobs, activity and investment.

Inflation rates have fallen again in 2023 after the extremely high figures in 2022. At the end of 2023, the global average rate was 5.5 % (previous year: 9.7 %). According to Eurostat, the inflation rate at year-end in Europe was 2.9 % (previous year: 9.2 %) and in Germany at 3.8 % (previous year: 9.6 %). According to Statista, inflation in the United States fell to 3.4 % (previous year: 6.5 %). In order to combat high inflation, the European Central Bank raised its key interest rate six times in 2023 by a total of 2.0 %; at the end of the reporting year, it stood at 4.5 %. The US Federal Reserve also raised its key interest rate several times in the reporting year by a total of 1.0 % to 5.5 % at the end of the year.

The Euro was heterogeneous against major currencies compared to the previous year. The Euro appreciated by 3.6 % against the US dollar in 2023. Against the Japanese Yen, the increase was as high as 11.1 %. In contrast, the Euro has lost 6.0 % against the Swiss Franc and 2.0 % against the British pound (source: Deutsche Bundesbank).

The high oil price level in 2022 due to Russia's war against Ukraine fell again significantly in 2023. The average oil price in 2023 was USD 82.51 per barrel of Brent crude oil, 18 % below the previous year's average price of

USD 100.78 per barrel. In December 2023, a barrel of Brent crude oil cost USD 77.63 (December 2022: USD 80.92) (source: www.statista.com).

III. DEVELOPMENT OF THE BUSINESS SEGMENTS

The following comments explain the development of the gross revenue and results attributable to the particular segments.

1. Engineering

The gross revenue of this business segment is mainly generated by the EDAG Group. The Group's customers are predominantly from the automotive sector. Insofar, the development of the automotive industry has a significant impact on this segment. However, even in economically weak times, manufacturers need to work on long-term development projects for new vehicles or technologies and the associated investments in new production facilities for new vehicle types require a longer lead time.

In 2023, the global passenger car market continued its recovery from the effects of the Covid-19 pandemic. In particular, the supply situation in the supply chains has eased noticeably and the exceptionally high order backlogs have been reduced somewhat. As of January 2024, IHS Markit assumes that global car production will have risen from 82.3 million units in 2022 to 89.8 million units in 2023, an increase of 9.1%. The strongest growth can be noticed in Japan / Korea with an increase of 15.3 % and in Europe with 12.7 %. The increase in North America is 9.1 %, in China slightly below average at 8.3%.

The automotive market remains in a state of transition and is still subject to major structural changes. Innovation drivers such as autonomous and connected driving, digitalisation, electromobility and new mobility services are having an impact worldwide and are also influencing the market for engineering services (EDL). At the same time, there are changing customer needs (e.g. declining relevance of the 'automotive status') and political uncertainties. These trends are creating a highly dynamic environment that entails both opportunities and risks for the EDL market. The area of safety & security is also becoming increasingly significant. As society strives to minimise risk ('vision zero', i.e. a world without work and traffic accidents), comprehensive safety concepts are being developed that also cover infrastructure and monitoring systems such as vehicle control systems. As a consequence, the engineering service provider industry is optimistic for the next years, as there is sufficient business potential due to the digital transformation, among other things.

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

in EUR '000	2023	2022	Change
Gross revenue	911,783	849,925	61,858
EBITDA	99,822	101,706	- 1,884
EBITDA margin in %	10.9	12.0	- 1.0
EBIT	36,548	28,646	7,902
EBIT margin in %	4.0	3.4	0.6
EAT	18,952	18,230	722

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

The EDAG Group was able to increase its gross revenue from EUR 797.1 million in previous year by a further 6.0 % to EUR 844.8 million in 2023. As a result of the continuing positive economic development, EDAG reported the highest net sales and the highest gross revenue in its history. It is pleasing to note that all three business fields ‘Production Solutions’, ‘Vehicle Engineering’ and ‘Electrics / Electronics’ were able to increase their sales compared to the previous year. In a challenging environment characterised by inflation and cost increases, EDAG was able to further increase its EBIT year-on-year to EUR 50.8 million (previous year: EUR 48.1 million) and thus maintain the EBIT margin at 6.0 %, as in the previous year. From a Group perspective, it must be taken into account that 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 14.0 million (previous year: EUR 26.1 million). As of 31 December 2023, the order backlog was increased further to EUR 415.5 million (as of 31 December 2022: EUR 401.2 million). The order backlog does not include potential requests from framework contracts or from series orders.

In a challenging financial year, Antriebssysteme Faurndau GmbH had suffered a decline in gross revenue to EUR 15.3 million (previous year: EUR 16.6 million) and could therefore only generate an EBIT of EUR 1.1 million (previous year: EUR 2.4 million). At Group level, amortisation effects from hidden reserves from the purchase price allocation also have a negative impact on EBIT in the amount of EUR 1.1 million (previous year: EUR 1.2 million). As of 31 December 2023, the company has an order backlog of EUR 4.8 million (as of 31 December 2022: EUR 6.4 million).

Krebs & Aulich GmbH was able to significantly increase its gross revenue to EUR 15.2 million (previous year: EUR 12.5 million). At EUR 1.1 million, EBIT was nevertheless only at the previous year's level (previous year: EUR 1.1 million). The amortisation effects at Group level from hidden reserves from the purchase price allocation burden the EBIT by EUR 0.5 million (previous year: EUR 0.5 million). Krebs & Aulich GmbH’s order backlog increased significantly to EUR 11.4 million as of 31 December 2023 (as of 31 December 2022: EUR 8.8 million).

Autotest Südtirol GmbH has been fully consolidated since April 2022. The company contributes a gross revenue for 12 months (previous year: 9 months) of EUR 35.8 million (previous year: EUR 23.3 million) to the present consolidated financial statements. The increase also reflects the successful acquisition of new projects, which is now also reflected in net sales. The margin also increased slightly and EBIT thus rose to EUR 0.8 million (previous year: EUR 0.2 million). The amortisation effects at Group level from hidden reserves from the purchase price allocation burden the EBIT by EUR 0.4 million (previous year: EUR 0.3 million). The company recorded a strong order intake in the financial year, resulting in a further increase in the order backlog to EUR 228.1 million as of 31 December 2023 (as of 31 December 2022: EUR 177.9 million).

The shareholding in the fully consolidated ecoCOAT GmbH remains unchanged at 51.0 %. The company was able to increase its sales and thus its gross revenue to EUR 0.7 million (previous year: EUR 0.3 million) as part of the market implementation of its first products, but did not quite achieve its sales targets. Due to product development and market launch costs, EBIT totalled EUR -1.0 million (previous year: EUR -1.0 million). The amortisation effects at Group level from hidden reserves from the purchase price allocation burden the EBIT by EUR 0.3 million (previous year: EUR 0.3 million).

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 result of the segment.

The most important factor influencing Redpath's business worldwide is commodity prices. However, new mines are often developed with a view to expected future demand. The mood on the commodity markets was rather gloomy in 2023. Prices for industrial metals remained flat across the board in 2023 due to persistent economic concerns about various regions of the world and China in particular. The global economy will grow somewhat more dynamically again in 2024. No sharp price rises are generally expected in the coming quarters of 2024 for cyclically sensitive commodity sectors such as industrial metals. This is because the demand for raw materials should be covered by the supply of raw materials in such a way that no major bottlenecks occur. According to DEKA, precious metals will receive some support from monetary policy again from mid-2024.

Based on the Bloomberg Commodity Index, which reflects the development of commodity prices, commodity prices will fall by around 12 % overall in 2023. According to DEKA, only moderate growth, slightly higher structural inflation, higher interest rates and ongoing geopolitical conflicts are likely to characterise developments over the next two years (refer to DEKA Macro Research - Commodities Economy of December 2023).

The key performance indicators of the segment developed as follows compared to the previous year’s period:

in EUR '000	**2023**	**2022**	**Change**
Gross revenue	953,455	774,736	178,719
EBITDA	104,678	80,029	24,649
EBITDA margin in %	11.0	10.3	0.6
EBIT	44,584	16,697	27,887
EBIT margin in %	4.7	2.2	2.5
EAT	14,597	- 87,486	102,083

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

The business development of the Redpath Group can be assessed as very positive, considering in particular the general development of the raw materials market in the financial year. With the exception of Africa, all regions exceeded the planned sales volume. In this environment, gross revenue could be increased by EUR 178.7 million or 23.1 % to EUR 953.5 million. Project margins also improved overall compared to the same period of the previous year, with only individual projects in Australia and North America still showing a weaker performance. It should also be noted that the implementation of a new, global, cloud-based ERP system led to significant non-capitalisable costs, which had a negative impact on EBIT in the reporting period. Nevertheless, EBIT increased sharply to EUR 44.6 million (previous year: EUR 16.7 million), which is 167.0 % higher than in the previous year. The EBIT margin improved to 4.7 % (previous year: 2.2 %). If the CAD foreign exchange rate had remained unchanged, the improvement in sales and EBIT would have been even slightly higher.

The order backlog, which increased again as a result of the strong order intake as of 31 December 2023, now amounts to EUR 1,488.6 million (as of 31 December 2022: EUR 1,320.4 million) and allows the Redpath Group to look to the future with optimism.

The investment in Murray & Roberts, which is accounted for using the equity method, made a negative contribution of EUR -22.0 million to the financial result for the reporting period (previous year: EUR -98.8 million) due to the impairment based on the development of the company's equity and the stock market price.

3. Med Tech

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

In most developed countries, healthcare spending now account for more than 10 % of gross domestic product. In countries such as the United States or Germany, the ratio is even significantly higher (see 'World Health Organization Global Health Expenditure Database' as of 7 April 2023). We expect that health expenditure will continue to rise in the future due to population growth and the further ageing of society.

The size of the global medical technology market as part of the healthcare system amounted to around USD 600 billion in 2023 and is expected to grow to around USD 885 billion by 2030. This corresponds to an average growth rate of 5.8 % p.a. (see Precedence Research: 'Medical Devices Market - Global Market Size, Trends Analysis, Segment Forecasts, Regional Outlook 2023 – 2032' from November 2023).

Diagnostic imaging, the market segment in whose sub-segment 'mobile C-arms' Ziehm Group is active, is one of the largest market segments of the medical technology market, along with in-vitro diagnostics and cardiology. This market segment had a size of around USD 35 billion in 2023. This segment is expected to grow at an annual rate of around 6 % and thus reach a size of around USD 53 billion in 2030. The growth of this market segment is primarily attributable to the increasing number of chronic diseases in the cardiovascular and neurological areas (see Research Nester: 'Diagnostic Imaging Market - Global Supply & Demand Analysis & Opportunity Outlook 2024 – 2036' from May 2023). The volume of the mobile C-arm sub-segment was between USD 1.2 and 1.3 billion in 2023 (see Signify Research: 'Interventional and Surgical X-ray World Market Report' from July 2022).

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

in EUR '000	2023	2022	Change
Gross revenue	240,308	214,056	26,252
EBITDA	36,698	32,079	4,619
EBITDA margin in %	15.3	15.0	0.3
EBIT	26,370	21,968	4,402
EBIT margin in %	11.0	10.3	0.7
EAT	16,732	15,045	1,687

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

In the reporting period, Ziehm Group achieved a gross revenue of EUR 240.3 million, which represents a further increase of 12.3 % on the very strong gross revenue of the previous year (previous year: EUR 214.1 million). This record revenue also exceeded the budget for the financial year, due to higher sales of C-arms and higher service revenue. At EUR 28.4 million, EBIT was also well above the previous year's level (previous year: EUR 24.1 million). This was primarily due to the higher than planned share of high-margin high-end devices. The EBIT margin thus increased to 11.8 % (previous year: 11.2 %). The order backlog as of 31 December 2023 was down on the previous year to EUR 28.5 million due to the very strong processing and invoicing of orders in the last quarter (as of 31 December 2022: EUR 32.7 million).

AspiAir GmbH, which was newly founded towards the end of 2019, is developing inhaled therapies and is still in the research and development phase and therefore does not yet generate any revenue or gross revenue to date. EBIT amounts to EUR -1.9 million (previous year: EUR -2.1 million) and results primarily from research and development activities that cannot yet be capitalised.

4. Aviation

A broad geographical and functional focus enables the DC Aviation Group to meet specific cyclical and seasonal requirements in terms of aircraft management, charter, hangarisation, handling, storage and maintenance services. The two joint ventures in Dubai and Nice are complementary in such a way that the joint venture DC Aviation G-OPS at Nice Cote d'Azur Airport, the busiest airport for business aviation in the summer months, handles almost a third of European business aviation aircraft movements. The joint venture DC Aviation Al Futtaim Inc. in Dubai in turn benefits from the massive increase in air traffic in this region during the winter half-year.

In addition to the new presence in Nice, DC Aviation 2023 expanded its location in Oberpfaffenhofen near Munich, which it had opened in the previous year, with numerous new customers, strengthened its management activities in Malta and, via the joint venture in Dubai, established a fourth AOC (air operator's certificate) in San Marino, a location that is attracting increased interest from aircraft owners for aircraft registration there due to its aviation law characteristics.

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

in EUR '000	2023	2022	Change
Gross revenue	106,648	126,682	- 20,034
EBITDA	6,583	7,598	- 1,015
EBITDA margin in %	6.2	6.0	0.2
EBIT	2,836	4,253	- 1,417
EBIT margin in %	2.7	3.4	- 0.7
EAT	2,612	3,665	- 1,053

As in the previous year, DC Aviation GmbH was again able to achieve a significantly higher-than-planned sales volume and business result in 2023. In addition to the core business areas of aircraft management and maintenance, various aircraft trading transactions, the profitable marketing of block charter contingents and the provision of shared services for the DC Aviation Group's foreign subsidiaries contributed to this.

The gross revenue of DC Aviation GmbH in 2023 amounts to EUR 106.6 million (previous year: EUR 126.7 million). In addition to the aircraft trading transactions, third-party charter business of around EUR 15.0 million (previous year: EUR 26.3 million) was generated through individual orders and various block charter agreements. The company thus realised an EBIT of EUR 2.8 million in the financial year (previous year: EUR 4.3 million). The hangar capacities at all locations are largely utilised and ensure profitable capacity utilisation. In addition to the lower third-party charter business, the decline in gross revenue and EBIT is primarily due to a lower volume of aircraft trading transactions.

The companies accounted for using the equity method (in particular the joint ventures DC Aviation Al Futtaim in Dubai and DC Aviation G-OPS in Nice) are all reflected below EBIT in the financial result with an earnings contribution of EUR 1.6 million (previous year: EUR 1.3 million).

As of 31 December 2023, a total of 29 aircraft (as of 31 December 2022: 30 aircraft) are operated within the DC Aviation fleet.

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 2 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	2023		2022		Change	
Revenue	2,206,607	99.5%	1,950,440	99.2%	256,167	13.1%
Gross revenue	**2,217,808**	**100.0%**	**1,965,596**	**100.0%**	**252,212**	**12.8%**
Cost of materials	- 548,495	- 24.7%	- 470,935	- 24.0%	- 77,560	16.5%
Gross profit	**1,669,313**	**75.3%**	**1,494,661**	**76.0%**	**174,652**	**11.7%**
Personnel expenses	- 1,171,140	- 52.8%	- 1,055,115	- 53.7%	- 116,025	11.0%
Impairment losses / reversal of impairment losses on financial assets	1,718	0.1%	12,537	0.6%	- 10,819	- 86.3%
Other operating expenses ./. income	- 258,968	- 11.7%	- 223,186	- 11.4%	- 35,782	16.0%
EBITDA	**240,923**	**10.9%**	**228,897**	**11.6%**	**12,026**	**5.3%**
Depreciation and amortisation	- 136,013	- 6.1%	- 145,344	- 7.4%	9,331	- 6.4%
Impairment losses	- 2,093	- 0.1%	- 5,132	- 0.3%	3,039	- 59.2%
EBIT	**102,817**	**4.6%**	**78,421**	**4.0%**	**24,396**	**31.1%**
Net interest expense	- 14,470	- 0.7%	- 9,173	- 0.5%	- 5,297	57.7%
Other financial result	7,060	0.3%	- 112,877	- 5.7%	119,937	- 106.3%
Net financial result	**- 7,410**	**- 0.3%**	**- 122,050**	**- 6.2%**	**114,640**	**- 93.9%**
Income taxes	- 33,884	- 1.5%	2,736	0.1%	- 36,620	- 1,338.5%
Consolidated earnings after taxes (EAT)	**61,523**	**2.8%**	**- 40,893**	**- 2.1%**	**102,416**	**- 250.4%**
EAT attributable to non-controlling interest	1,374	0.1%	- 3,761	- 0.2%	5,135	- 136.5%
EAT attributable to owners of the parent	**60,149**	**2.7%**	**- 37,132**	**- 1.9%**	**97,281**	**- 262.0%**

Gross revenue is EUR 252.2 million or 12.8 % higher than in previous year. All segments except Aviation contributed to this increase. In the Mining segment, gross revenue could be increased by 23.1 % to EUR 953.5 million, in the Med Tech segment by 12.3 % to EUR 240.3 million and in the Engineering segment by 7.3 % to EUR 911.8 million. In the Aviation segment, on the other hand, gross revenue fell by 15.8 % to EUR 106.6 million. The slight growth in gross revenue forecasted in the previous year has thus even been exceeded significantly in the financial year 2023.

The cost of materials increased disproportionately to the gross revenue. As a result, the cost of materials ratio increased from 24.0 % to 24.7 %. This increase is primarily attributable to the Mining segment (from 20.7 % to 24.3 %) and slightly to the Engineering segment (from 15.5 % to 15.7 %). In contrast, the cost of materials ratio fell from 70.7 % to 66.3 % in the Aviation segment and from 41.8 % to 40.4 % in the Med Tech segment. The cost of materials ratio in the Mining segment varies depending on the projects and is therefore exclusively related to the composition of sales. The lower cost of materials ratio in the Aviation segment can be attributed to the decline in low-margin third-party chartering. In the Med Tech segment, the decline in the supply chain problems and thus a normalisation of purchase prices for semiconductors can be noticed compared to the previous year.

As a consequence, gross profit increased by EUR 174.7 million or 11.7 % to EUR 1,669.3 million. However, the gross profit margin at 75.3 % is slightly below the previous year's level (previous year: 76.0 %).

Although personnel expenses increased by EUR 116.0 million in absolute terms, the personnel expenses ratio of 52.8 % is below the level of the previous year (53.7 %) due to the significant growth in revenue.

The net amount of other operating expenses / income deteriorated by EUR 35.8 million from EUR -223.2 million in previous year to EUR -259.0 million, although this is essentially in line with the growth in gross revenue. The decline in other operating income in the amount of EUR 18.9 million or 28.8 % is mainly due to two significant one-off effects in the previous year in the Mining segment (insurance compensation) and in the Engineering segment (recognition of badwill from a first-time consolidation in profit or loss). Other operating expenses increased by EUR 16.8 million or 5.8 % net, mainly due to project-related changes in the Mining and Engineering segments.

As a result of the effects described above, EBITDA increases by EUR 12.0 million to EUR 240.9 million.

Compared to the previous year’s period, depreciation and amortisation decreased by EUR 12.4 million to EUR 138.1 million, which is mainly due to the lower depreciation and amortisation of capitalised hidden reserves as part of the purchase price allocation in the Engineering segment. However, the Mining segment also contributed to this decline.

EBIT increased by a total of EUR 24.4 million to EUR 102.8 million (previous year: EUR 78.4 million). The EBIT margin also improved to 4.6 % (previous year: 4.0 %). In the Mining segment, the EBIT margin increased from 2.2 % to 4.7 %, in the Med Tech segment from 10.3 % to 11.0 % and in the Engineering segment from 3.4 % to 4.0 %. In the Aviation segment, the EBIT margin declined from 3.4 % to 2.7 %. As a result, the forecasted slight increase in EBIT in the previous year was also significantly exceeded in 2023.

The net interest result is negative at EUR -14.5 million and declined by EUR 5.3 million compared to the previous year due to the rise in interest rates and the increase in financial liabilities. The higher interest expense is mainly due to the Engineering and Mining segments.

The other financial result improved from EUR -112.9 million in the comparative period to EUR 7.1 million in the reporting period. The improvement is primarily due to the valuation of the investment in the Murray & Roberts Group at the stock market price, which led to a (net) impairment loss of EUR -5.4 million in the financial year 2023, compared to a (net) impairment loss of EUR -37.8 million in the previous year. The result from companies accounted for using the equity method now amounts to EUR -4.3 million (previous year: EUR -58.3 million) and results from the investment in the Murray & Roberts Group in the amount of EUR -16.6 million (previous year: EUR -61.0 million). The joint ventures of the Redpath Group in particular had a positive effect on the result from companies accounted for using the equity method. The development on the stock exchanges is also reflected in the improvement in the other financial result, as dividends and valuation gains on securities held resulted in a positive contribution to earnings totalling EUR 16.8 million. In the previous year, there was a loss of EUR -17.1 million.

With earnings before income taxes (EBT) of EUR 95.4 million, the tax rate in the reporting period is at 35.5 % and thus slightly above the expected Group tax rate. However, the tax rate is always strongly dependent on the composition of the Group's results. In addition, special effects that are not effective for tax purposes are again having an impact this year. For example, the (net) impairment on the Murray & Roberts shares and the result from companies accounted for using the equity method are not effective for tax purposes. Adjusting for the result from companies accounted for using the equity method and the other investment result, the tax rate is at 32.3 %, which is relatively close to the expected Group tax rate.

In line with the aforementioned effects, the consolidated earnings after taxes (EAT) improved by a total of EUR 102.4 million to EUR 61.5 million and therefore increased more significantly than forecasted.

After deduction of EAT attributable to non-controlling interest, the EAT attributable to owners of the parent amounts to EUR 60.1 million (previous year’s period: EUR -37.1 million).

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 contains a condensed cash flow statement:

in EUR '000	2023	2022	Change	
Cash and cash equivalents at the beginning of the period	**383,457**	**529,100**	**- 145,643**	**- 27.5%**
Earnings before interest, dividends and income taxes	107,513	- 37,008	144,521	
Depreciation and amortisation / write-ups of assets / change in risk allowances / valuation of financial assets	130,592	195,098	- 64,506	
Result from the disposal of property, plant and equipment and securities	- 5,289	- 1,593	- 3,696	
Result from the disposal / deconsolidation of consolidated subsidiaries	-	- 32	32	
Change in provisions	2,101	2,582	- 481	
Other non-cash transactions	3,036	52,776	- 49,740	
Gross cash flow	**237,953**	**211,823**	**26,130**	**12.3%**
Interest, dividends and income taxes paid / received	- 51,600	- 26,513	- 25,087	
Changes in trade working capital	- 90,737	- 105,769	15,032	
Changes in other working capital	37,527	14,867	22,660	
Cash flow from operating activities	**133,143**	**94,408**	**38,735**	**41.0%**
Investments in / proceeds from the disposal of intangible assets and property, plant and equipment	- 74,760	- 74,521	- 239	
Investments in / proceeds from the disposal of financial assets / associates	14,397	45,397	- 31,000	
Proceeds from the disposal of / payments for the acquisition of consolidated subsidiaries	- 3,455	- 3,892	437	
Cash flow from investing activities	**- 63,818**	**- 33,016**	**- 30,802**	**93.3%**
Proceeds from shareholder	68,000	19,000	49,000	
Payments to shareholders	- 170,483	- 137,827	- 32,656	
Proceeds from / repayments of loans and leases liabilities	- 17,144	- 88,739	71,595	
Cash flow from financing activities	**- 119,627**	**- 207,566**	**87,939**	**- 42.4%**
Effect of changes in exchange rates	- 2,263	531	- 2,794	
Cash and cash equivalents at the end of the period	**330,892**	**383,457**	**- 52,565**	**- 13.7%**

The cash flow from operating activities amounts to EUR 133.1 million, an increase by EUR 38.7 million compared to previous year's period. This is mainly due to an improvement of earnings before interest, dividends and income taxes by EUR 144.5 million to EUR 107.5 million compared to the previous year. The result from the disposal of property, plant and equipment and securities, which is included in the initial figure and has to be adjusted, amounts to EUR 5.3 million. On the other hand, non-cash (net) depreciation and amortisation / write-ups of assets amounting to EUR 130.6 million must be added to the cash flow. Provisions also increased by EUR 2.1 million, improving cash flow. In addition, there are other non-cash transactions to be corrected in the amount of EUR 3.0 million, which also increases cash flow. Overall, the aforementioned development results in a gross cash flow of EUR 238.0 million, which is still EUR 26.1 million above previous year's level.

The increase in trade working capital in the reporting period amounted to EUR 90.7 million (previous year: increase of EUR 105.8 million). In contrast, other working capital was reduced by EUR 37.5 million (previous year: reduction of EUR 14.9 million). Although, the net increase in working capital in the reporting period totalling EUR 53.2 million has a negative effect on the development of cash flow from operating activities, this represents an improvement in cash flow of EUR 37.7 million compared to the previous year (previous year: EUR -90.9 million). The net value of interest, dividends and income taxes paid / received also leads to a cash outflow in the reporting period of EUR 51.6 million (previous year: cash outflow of EUR 26.5 million).

The cash flow from investing activities shows a cash outflow of EUR 63.8 million in the reporting period (previous year: cash outflow of EUR 33.0 million). While net investments in property, plant and equipment and intangible assets in the amount of EUR 74.8 million are almost at the level of the previous year (EUR 74.5 million), net cash inflows from investments in financial assets and shares in associated companies amount to EUR 14.4 million in the reporting period (previous year: net cash inflow of EUR 45.4 million). The cash inflows mainly result from the net repayment of loans (primarily from related parties) in the amount of EUR 6.0 million and from net cash proceeds from the sale / acquisition of securities in the amount of EUR 11.0 million. In addition, the payments of contingent purchase prices for company acquisitions from previous years led to a cash outflow of EUR 3.5 million in the reporting period.

The cash flow from financing activities shows a total cash outflow of EUR 119.6 million (previous year: EUR 207.6 million) and is based on net payments to shareholders in the amount of EUR 102.5 million (previous year: EUR 118.8 million), which are mainly a result of the capital reduction and distribution of EUR 150.0 million and offsetting shareholder loans received. In addition, there is a net repayment of bank loans and lease liabilities in the amount of EUR 17.1 million (previous year: EUR 88.7 million).

Taking into account the effect of changes in currency exchange rates of EUR -2.3 million (previous year: EUR 0.5 million), cash and cash equivalents decreased by a total of EUR 52.6 million in the reporting period. Accordingly, cash and cash equivalents fell from EUR 383.5 million at the beginning of the reporting period to EUR 330.9 million at the end of the reporting period.

3. Net assets position

in EUR '000	31.12.2023		31.12.2022		Change	
Assets						
Intangible assets	342,397	15.0%	358,307	15.8%	- 15,910	- 4.4%
Property, plant and equipment	593,481	26.0%	554,329	24.5%	39,152	7.1%
Other financial assets and at-equity-investments	282,544	12.4%	300,982	13.3%	- 18,438	- 6.1%
Inventories	140,476	6.1%	131,963	5.8%	8,513	6.5%
Trade and other receivables	459,428	20.1%	398,370	17.6%	61,058	15.3%
Deferred tax assets	37,394	1.6%	41,557	1.8%	- 4,163	- 10.0%
Cash and cash equivalents	330,892	14.5%	383,457	16.9%	- 52,565	- 13.7%
Contract assets	87,192	3.8%	75,317	3.3%	11,875	15.8%
Other assets	10,716	0.5%	19,150	0.8%	- 8,434	- 44.0%
Total assets	**2,284,520**	**100.0%**	**2,263,432**	**100.0%**	**21,088**	**0.9%**
Equity and liabilities						
Equity	1,150,090	50.3%	1,243,738	54.9%	- 93,648	- 7.5%
Provisions	89,371	3.9%	89,437	4.0%	- 66	- 0.1%
Financial liabilities	621,927	27.2%	513,947	22.7%	107,980	21.0%
Trade and other payables	319,564	14.0%	266,254	11.8%	53,310	20.0%
Deferred tax liabilities	38,697	1.7%	42,755	1.9%	- 4,058	- 9.5%
Contract liabilities	59,759	2.6%	88,739	3.9%	- 28,980	- 32.7%
Other liabilities	5,112	0.2%	18,562	0.8%	- 13,450	- 72.5%
Total equity and liabilities	**2,284,520**	**100.0%**	**2,263,432**	**100.0%**	**21,088**	**0.9%**

The balance sheet total increased by EUR 21.1 million compared to 31 December 2022.

The decrease of intangible assets by EUR 15.9 Mio is mainly due to scheduled amortisation of EUR 26.0 million, which in particular relates to the customer base and intellectual property rights, as well as currency translation effects in the amount of EUR 0.7 million. This is offset by additions in the reporting period in the amount of EUR 11.9 million.

Property, plant and equipment increased by EUR 39.2 million. This is primarily due to additions of EUR 167.7 million in the reporting period, in particular from new leases at the EDAG Group and the Redpath Group. This is offset by depreciation of EUR 112.1 million, disposals of EUR 12.3 million as well as negative currency translation effects of EUR 4.2 million.

Other financial assets and at-equity-investments decreased by EUR 18.4 million. This is mainly due to the net decrease of EUR 14.3 million in loans to related parties reported under non-current and current other financial assets. In addition, there is a net decrease in the shares in Murray & Roberts Holdings Limited amounting to EUR 17.5 million (carrying amount after at-equity valuation or impairment to the stock market price: EUR 14.3 million). Other investments accounted for using the equity method increased by EUR 12.5 million. Other investments recognised at fair value increased by EUR 5.1 million due to the addition of the shares in Grey Orange International Inc.. In contrast, securities measured at fair value through profit and loss decreased by EUR 4.0 million, primarily due to the conversion of the convertible loan to Grey Orange International Inc.

Inventories increased by EUR 8.5 million, mainly attributable to DC Aviation GmbH due to one aircraft acquired for sale (EUR +11.3 million), Ziehm Group (EUR +2.2 million) and Krebs & Aulich GmbH (EUR +1.5 million). In contrast, the inventories of ATON Oldtimer GmbH decreased by EUR 6.6 million due to the sale of vintage cars.

Trade and other receivables increased by EUR 61.1 million. This is mainly due to the EUR 63.1 million increase in net trade receivables, which is primarily attributable to the Redpath Group and the Ziehm Group. Impairment losses on trade receivables decreased by a total of EUR 25.2 million. In contrast, other receivables are EUR 2.0 million lower, mainly due to the Redpath Group.

Cash and cash equivalents decreased by EUR 52.6 million. For further information on the change in cash and cash equivalents, please refer to section **IV.2. Financial position**.

Contract assets increased by EUR 11.9 million, mainly due to an increase at EDAG Group of EUR 10.2 million and at Autotest Südtirol GmbH of EUR 1.7 million. In contrast, contract assets decreased by EUR 0.5 million at Redpath Group.

Other assets, which decreased by EUR 8.4 million to EUR 10.7 million, include income tax receivables of EUR 10.5 million (previous year: EUR 18.8 million) and aircraft spare parts of EUR 0.2 million (previous year: EUR 0.3 million).

The equity ratio decreased from 54.9 % at the end of the previous year to 50.3 % as at the balance sheet date, with equity decreasing by EUR 93.6 million in absolute terms. This is mainly due to the reduction in share capital of EUR 150.0 million carried out at the end of April 2023 and, in contrast, the positive consolidated earnings after tax of EUR 61.5 million in the reporting period. Other comprehensive income increased by EUR 1.7 million, primarily due to currency translation effects and actuarial gains and losses relating to pension provisions.

Provisions decreased by EUR 0.1 Mio. While income tax provisions fell by EUR 5.5 million, pension provisions increased by EUR 4.0 million as a result of the decrease in the interest rate. Furthermore, other provisions increased by EUR 1.4 million. The increase in other provisions is mainly due to the higher other miscellaneous provisions (EUR +1.6 million) and personnel provisions (EUR +0.9 million). In contrast, warranty provisions decreased by EUR 1.3 million.

Financial liabilities increased by EUR 108.0 million. This is mainly due to an increase in liabilities from loans from shareholders in the amount of EUR 40.0 million as well as liabilities to banks in the amount of EUR 46.6 million due to new bank loans at the EDAG Group and at the Redpath Group. In addition, lease liabilities also increased by EUR 24.5 million, which is mainly attributable to the Redpath Group. In contrast, liabilities to companies accounted for using the equity method decreased by EUR 2.4 million.

Trade and other payables increased by EUR 53.3 million. This is largely due to the increase in trade payables (EUR +23.0 million), liabilities to employees (EUR +22.0 million), other liabilities to associates (EUR +7.8 million), advance payments received on orders (EUR +2.0 million), liabilities from VAT and other taxes (EUR +1.4 million) and other liabilities to related parties (EUR +0.5 million). On the other hand, liabilities from business combinations decreased by EUR 4.0 million.

Contract liabilities decreased by EUR 29.0 million. This balance sheet item results from the fact that customers have (partially) paid the consideration before the Group has provided the service over a certain period of time. The decline mainly results from the EDAG Group due to the processing of prepaid customers' projects (EUR -29.0 million).

Other liabilities decreased by EUR 13.5 million to EUR 5.1 million and as of the balance sheet date exclusively include income tax liabilities.

Working capital increased by a total of EUR 57.1 million, which is, as explained above, primarily due to the increase in trade receivables and other receivables by EUR 61.1 million, contract assets by EUR 11.9 million and inventories by EUR 8.5 million. On the other hand, trade payables and other liabilities increased by EUR 53.3 million, but overall less than the assets. In contrast, contract liabilities fell by EUR 29.0 million.

The following overview presents assets and capital according to maturity:

in EUR '000	**31.12.2023**		**31.12.2022**	
Non-current assets				
Intangible assets and property, plant and equipment	935,878	41.0%	912,636	40.3%
Financial assets	176,970	7.7%	178,290	7.9%
Other assets	43,443	1.9%	48,162	2.1%
	1,156,291	**50.6%**	**1,139,088**	**50.3%**
Current assets				
Inventories	140,476	6.1%	131,963	5.8%
Receivables and contract assets	540,776	23.7%	467,414	20.7%
Other financial assets	105,574	4.6%	122,692	5.4%
Cash and cash equivalents	330,892	14.5%	383,457	16.9%
Other assets	10,511	0.5%	18,818	0.8%
	1,128,229	**49.4%**	**1,124,344**	**49.7%**
Non-current capital				
Equity	1,150,090	50.3%	1,243,738	54.9%
Financial liabilities	424,577	18.6%	355,742	15.7%
Provisions, other liabilities, trade payables and contract liabilities	72,417	3.2%	62,317	2.8%
Other liabilities	38,697	1.7%	42,755	1.9%
	1,685,781	**73.8%**	**1,704,552**	**75.3%**
Current capital				
Financial liabilities	197,350	8.6%	158,205	7.0%
Provisions, other liabilities, trade payables and contract liabilities	396,277	17.3%	382,113	16.9%
Other liabilities	5,112	0.2%	18,562	0.8%
	598,739	**26.2%**	**558,880**	**24.7%**

Non-current assets of EUR 1,156.3 million are financed by non-current capital by 145.8 % (previous year: 149.6 %). Including current financial liabilities from loans from related parties in the amount of EUR 56.7 million (previous year: EUR 17.6 million), which are made available to the Group as basic funding, the coverage ratio amounts to 150.7 % (previous year: 151.2 %). Furthermore, 46.9 % (previous year: 50.3 %) of current assets are financed by non-current capital.

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

in EUR '000	31.12.2023	Share in total assets	31.12.2022	Share in total assets
Current assets	1,128,229	49%	1,124,344	50%
Current capital	598,739	26%	558,880	25%
Surplus cover or Coverage ratio	**529,490**	**188%**	**565,464**	**201%**

The coverage ratio shows that the Group continues to have extremely solid financing as of 31 December 2023. Current capital can be repaid at any time by liquidation of current assets.

Net debt position as of 31 December 2023 is as follows:

in EUR '000	31.12.2023	31.12.2022	Change
Cash and cash equivalents	330,892	383,457	- 52,565
Short-term securities	72,480	77,480	- 5,000
Short-term loans	33,050	45,032	- 11,982
Financial liabilities	- 621,927	- 513,947	- 107,980
Net debt	**- 185,505**	**- 7,978**	**- 177,527**

The net debt position decreased by EUR 177.5 million compared to the previous year's balance sheet date. As of the reporting date, net financial debt amounted to EUR 185.5 million (previous year: EUR 8.0 million). Cash and cash equivalents decreased by EUR 52.6 million, which is mainly due to the capital reduction of EUR 150.0 million. In addition, short-term loans decreased by EUR 12.0 million due to net loan repayments from related parties and shareholders. Short-term securities also decreased by EUR 5.0 million. At the same time, financial liabilities increased by EUR 108.0 million, mainly due to an increase in liabilities to banks in the amount of net EUR 46.6 million, shareholder loans in the amount of EUR 40.0 million (partial repayment of amounts from the capital reduction), as well as lease liabilities in the amount of EUR 24.5 million. In contrast, loan liabilities to companies accounted for using the equity method were reduced by a net amount of EUR 2.4 million.

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 the area of professional, methodological and social skills. Furthermore, the Group promotes consistent professional development and prepares young employees to take on management responsibilities.

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

In 2023, EUR 7.9 million (previous year: EUR 7.9 million) were again invested in training and development of our employees.

The ATON Group employed on average 15,594 employees during the year 2023 (previous year: 14,710 employees), whereby the increase is mainly due to the demand resulting from the significant increase in business activities.

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

	2023	in %	2022	in %
Salaried staff	11,469	74%	10,513	71%
Industrial workers	3,746	24%	3,867	26%
Trainees and interns	379	2%	330	2%
Total employees	**15,594**	**100%**	**14,710**	**100%**
Production and service	13,055	84%	12,426	84%
General administration	2,074	13%	1,855	13%
Sales and marketing	319	2%	293	2%
Research and development	146	1%	137	1%
Total employees	**15,594**	**100%**	**14,710**	**100%**
Germany	7,355	47%	7,012	48%
Europe (excluding Germany)	1,886	12%	1,851	13%
North America	2,175	14%	1,971	13%
South America	163	1%	148	1%
Australia	1,064	7%	912	6%
Asia	2,514	16%	2,297	16%
Africa	437	3%	520	4%
Total employees	**15,594**	**100%**	**14,710**	**100%**

These and other non-financial performance indicators are of secondary importance for the management of the Group.

VI. EXPECTED DEVELOPMENTS, OPPORTUNITIES AND RISKS

1. Expected developments

Global growth proved to be surprisingly resilient in 2023, as lower energy prices and easing supply chain pressures helped inflation to fall faster than expected. However, according to the OECD, the latest indicators point to a certain slowdown in growth. Barring further negative supply shocks, the cooling of demand pressures in most economies is likely to lead to a further decline in headline and core inflation. By the end of 2025, inflation in most G20 countries should reach the target again. Geopolitical risks remain high, particularly in connection with the ongoing conflict in the Middle East and Russia’s war against Ukraine. Further upside surprises in inflation could trigger sharp corrections in financial asset prices, as markets then are pricing in that key interest rates could be higher for longer periods.

Both headline and core inflation have fallen in 2023. Some of the factors that favoured disinflation last year are now dissipating or reversing, while others are at risk from geopolitical factors, extreme weather conditions or unforeseen events. With inflation still above target and unit labour cost growth generally remaining above levels consistent with medium-term inflation targets, it is too early to confirm that the inflation episode that began in 2021 is over.

The high-frequency economic indicators generally point to a continuation of the recent moderate growth. In a country comparison, there are still clear signs of strong short-term momentum in India, relative weakness in Europe and slight short-term growth in most other major economies. Global growth, which is estimated to be at 3.1 % in 2023, is forecast to slow to 2.9 % in 2024 and increase to 3.0 % in 2025 (see OECD Economic Outlook, Interim Report February 2024).

The German economy is unlikely to grow much in 2024. The OECD halved its forecast for Germany to 0.3 % in February 2024. This means that Germany is still lagging behind in an international comparison. This is mainly due to the fact that energy-intensive industry accounts for a large proportion of the German economy. However, the difference to the USA is particularly clear. Economic researchers are forecasting growth of 2.6 % for the US economy. The OECD figures show how tense the situation currently is for companies in the German economy. There are many reasons for this. Export companies continue to suffer from the weak global economy. In addition, the budget crisis has increased uncertainty for companies and households. The latest figures from the OECD indicate that a negative trend from last year is now continuing. Following the recession in the German economy in 2023, a decline in the current year cannot be ruled out. However, estimates for 2024 differ. While the ifo Institute forecasts growth of 0.7 %, the German Economic Institute (IW) expects a decline of half a per cent.

Despite this difficult and uncertain environment, the ATON Group believes it is well positioned thanks to its diversification and international focus. Consequently, we expect a further slight increase in the ATON Group's gross revenue, EBIT and EAT in 2024, which will be driven by the segments Mining, Engineering and Med Tech.

2. Risks

a) Macroeconomic risks

With regard to 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 remains of central importance. At present the Group’s liquidity supply is ensured by the existing cash and bank balances as well as sufficient lines of credit. At the end of financial year, cash, including short-term investments in securities and bonds, amounted to EUR 403.4 million. Including short-term loans and financial liabilities, the Group presents a net debt amounting to EUR 185.5 million. Financial liabilities of EUR 621.9 million include EUR 56.7 million of loans from related parties and shareholders. In addition, the Group and the individual companies have access to sufficient lines of credit and guarantee facilities from banks and credit insurers. At the end of December 2023, the Group had EUR 504.0 million of unutilised lines of credit at banks and credit insurers.

The development of liquidity and available liquid funds is monitored and managed by means of 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 overall Group level 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

An interest rate risk due to a change in the market interest rates result primarily from variable interest loan liabilities. The Group addresses this risk through a mixture of fixed and variable interest rate financial liabilities. At the end of the year, EUR 167.0 million of financial liabilities from banks were fixed-rate liabilities and EUR 53.5 million were at variable interest rates. In addition, EUR 56.7 million of fixed interest rate financial liabilities to related parties and shareholders exist at 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 by local financing of the subsidiaries in their respective national currency. For further hedging, forward exchange contracts are concluded at the level of the subsidiaries and in individual cases between the parent company and the subsidiaries.

Default risks

In order to limit default risks, a number of protective measures are in place at the subsidiaries. In Germany, default risks are generally addressed by credit insurers, letters of credit and prepayments. In Germany as well as abroad, the 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-sector clients. 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. The lenders have a right of cancellation if one of the agreed thresholds of the covenants is exceeded. The existing loan clauses were complied with.

As was the case at the end of 2022, there are no longer any contractual clauses at the level of the parent company in 2023 that restrict the financial debt of the ATON Group or the financial debt of the ATON subsidiaries. Covenants that exist at the level of the subsidiaries are monitored independently by these companies.

Other price risks

Another market risk is price risk, which is the risk of unfavourable changes in the prices of financial assets. Particularly, stock market prices or indices can be considered as risk variables. At the end of the financial year 2023, the Group holds EUR 102.0 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 expected loss in value for the actively managed portfolio with equity positions totalling EUR 49.8 million, is EUR 11.3 million at a confidence level of 95% and an observation period of 12 months. The value at risk for the actively managed portfolio with European corporate bonds totalling EUR 17.0 million is EUR 0.6 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 **35. 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 Engineering segment, the focus is on project risks. Large-scale projects in particular are usually complex and are often carried out in parallel in different countries. Sometimes, the scope of the services is not finally agreed 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 deficiencies, thus straining the company's net assets and financial position and results of operations. Through continuous project and risk management, the collection of appropriate advance payments, continuous project assessments as well as detailed reporting within the context of project steering committees, the companies are able to identify such risks at an early stage and take countermeasures.

The EDAG Group is in part strongly dependent on certain automotive manufacturers and hence on their long-term strategy and sales success. In response to this, the Group has stepped up its efforts to acquire new customers from start-ups in recent years in order to broaden its customer base in the long term and position itself much more internationally.

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 cut back on investments. Furthermore, long delivery times for machinery could lead to delays in 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 in the foreseen manner and that the targeted expansion of market shares will not be achieved, and in the worst case that even market shares will be lost. The Group counters this risk by continuously observing the 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; if mistakes are made here, marketing bans may follow. The Group counters this risk by continuously expanding the regulatory expertise required internal.

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

As a company in the aviation industry, DC Aviation is dependent not only on macroeconomic developments but also on commodity prices, changes to environmental regulations in the wake of changing political and public perceptions of air transport, geopolitical crises and the resulting restrictions and sanctions.

Supply chain bottlenecks, which have also recently manifested themselves in disruptions to maritime transport routes, can delay maintenance events due to a shortage of spare parts, meaning that aircraft are only put back into operation later than planned. A comprehensive control, safety and compliance management system is in place to counter technical operating risks that may prevent flight operations from being carried out as planned. Extensive internal and external audits as well as a just culture typical of aviation, based on the principle of non-punitive reporting, ensure that risks are recognised at an early stage and errors can be avoided. The risk of aviation accidents caused by human factors is minimised by regular safety training for crews that goes well beyond the legal requirements. Commercial accident risks are covered by liability and hull insurance.

DC Aviation specialises in the management and maintenance of business aircraft and in the high-end charter business. The direct dependence of business aviation on the general economic situation is dwindling, as the industry is benefiting from increased individual prosperity, the effects of inflationary monetary policy and the need for more individualised travel in the sense of a luxury good. As all fixed costs in the aircraft management business segment are borne by the respective aircraft owners and aircraft maintenance intervals must be adhered to regardless of economic cycles, the business model is characterised as seasonally independent and resistant to economic cycles.

The aviation industry is not unaffected by the general shortage of labour and skilled workers, particularly in Germany. DC Aviation is responding to the increased competition for qualified and motivated employees through intensified recruitment marketing, attractive work environment design and strategies for the digitalisation of personnel-intensive business processes.

The environmental risks of a naturally controversial industry such as aviation lie primarily in the taxonomy of aircraft emissions. Due to the obligatory purchase of emission certificates depending on the volume of flights, the industry in Europe is already prepared to pay and generate a disproportionately higher contribution compared to the rest of the world. In this respect, an even more far-reaching, one-sided tightening of regulations in Europe would place even greater demands on the resilience of players in the European market.

d) Legal risks

As a globally active group, the ATON Group is subject to a number of risks in connection with legal disputes and other proceedings, including official proceedings, in the course of its ordinary business activities.

Risks may arise from product liability, competition law, intellectual property law and general civil law, among other things. If these risks materialise, the reputation of the ATON Group could be damaged and this could have a negative impact on the company's success.

These risks are countered by standards in the individual Group entities, for example for general terms and conditions, sample contracts and guidelines in the form of directives, which are continuously developed further. External specialist lawyers are also regularly consulted for complex issues or issues that fall outside the standards developed for day-to-day business.

The risk arising from the squeeze-out of the minority shareholders of W.O.M. World of Medicine AG remains unchanged. The minority shareholders initiated appraisal proceedings years ago to review the appropriateness of the cash compensation per share offered. The proceedings are still pending before the Berlin Regional Court. The duration and outcome of the legal dispute are currently still open. After no final decision was reached in 2023, contrary to our expectations, we now assume that a decision will be reached in the financial year 2024.

e) IT risks

In all units of the ATON Group, the importance of digitalisation, electronically processed information and the availability of IT structures continues to increase due to the steadily growing use of IT technologies for all functional areas. This affects both the frequency of virus and / or hacker attacks, for example, as well as their potential for damage. Many companies in the ATON Group are highly dependent on functional IT and secure data connections to customers. However, disruptions and attacks on IT systems and networks cannot be completely ruled out. A failure of the IT systems or loss of data can have serious consequences. There is also a risk that strictly confidential information, particularly with regard to new technological findings or partnerships in the area of research and development, could reach third parties without authorisation. This could have a negative impact on their good position on the market; in addition, there is the potential loss of reputation associated with this. In order to guarantee uninterrupted and trouble-free operations, the Group units attach great importance to the high availability of IT resources and services and now also rely on cloud-based IT structures where this is advantageous. To protect confidential information, a range of security standards (such as firewall systems, virus protection, access controls at operating system and application level, encryption, etc.) have been implemented and are regularly reviewed for their 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 recognise operational IT risks at an early stage and implement appropriate concepts to prevent dangers.

f) Risks from epidemics / pandemics

There are risks worldwide from the transmission of infectious agents from animals to humans, from humans to humans and by other means. Epidemic, pandemic or other patterns of spread can lead to high disease rates in different countries, regions or continents. In the short, medium and long term, this can lead to a drop in demand for the products and services offered. High employee sickness rates can also jeopardise operations. Official restrictions can also lead to operational limitations.

As experienced during the Covid-19 crisis, this can result in macroeconomic risks that lead to a temporary or prolonged significant decline in economic growth worldwide. Such risks for the ATON Group may not only affect sales development, but also lead to significant impairments in production and services, procurement markets and supply chains.

g) Geopolitical and trade risks

Geopolitical and trade policy developments around the world in particular can give rise to uncertainties for the global economy and the ATON Group's business development. Russia's war against Ukraine and, in the worst-case scenario, its spread to other countries are still at the forefront. If the war spreads, it could have a negative impact on the sales development of individual Group entities, production processes and purchasing and logistics processes, for example through interruptions in supply chains and energy supplies or bottlenecks in components, raw materials and primary products. Higher cyber risks cannot be ruled out either. Currency risks and bad debt risks may also increase as a result of restrictions on cross-border payment transactions.

Furthermore, a further escalation of tensions between the United States and China and a further deterioration in political relations between the European Union and China could lead to increased uncertainty and adversely affect both the global economic outlook and the business development of the ATON Group.

h) Climate related risks

Ongoing climate change also harbours opportunities and risks for the ATON Group. With regard to energy consumption, climate-related risks arise in particular from regulatory changes, for example in the pricing of CO2 via emissions trading systems, taxes or energy legislation. Increasing extreme weather events and chronic climate change could also potentially have an impact on business operations. In order to actively counter these risks and better manage them, the ATON Group is currently establishing a group-wide sustainability system to record, monitor and actively manage climate-related risks. This system will also form the basis for mandatory sustainability reporting in accordance with the CSRD from the financial year 2025 onwards.

3. Opportunities

a) Opportunities in general

According to our own assessment, the subsidiaries of the ATON Group are among 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 forecast from S&P Global Mobility, global new light vehicle sales are expected to rise by a further 2.8 % in 2024 compared to 2023. The light vehicle output recovery continues to feed inventory restocking efforts across many regions, as supply chain and demand is further recovering, supported by lingering pent-up consumer demand. S&P Global Mobility remains wary on recovery prospects, however, with consumer demand challenged by elevated vehicle pricing alongside challenging credit and lending conditions. 2024 is expected to be another year of sluggish recovery as the automotive industry moves beyond clear supply-side risks into a murkier macro-led demand environment. A major concern is how the ‘natural demand’ for electric vehicles will evolve as governments consider scaling back their interventionist policy support, particularly in the form of incentives and subsidies.

In Europe, improved vehicle production is likely to shorten delivery times and lead to a normalisation of inventories. For 2024, S&P Global Mobility is forecasting production of 15.1 million units, an increase of 2.9 % compared to 2023. This reflects economic recession risks, tighter credit conditions, a slowdown in pent-up demand, still high vehicle prices and expiring subsidies for electric vehicles. The most important challenges for Europe include the dynamic transition to electrification, wait-and-see customers, lurking Chinese OEMs, energy problems and the upcoming EU elections.

In the United States, sales are expected to reach 15.9 million units in 2024, an estimated increase of 2.0 % compared to 2023. Just as the automotive industry appears to be returning to normality on the supply side, US consumers will continue to face affordability issues in the market for new vehicles in 2024 as a result of high interest rates, tight credit conditions and slow declines in prices for new vehicles. Uncertainty among buyers means that car sales are only expected to increase slightly over the next few years.

Following the already significant recovery in local vehicle production in China in 2023, the market will continue to be supported in 2024 by pent-up demand and the gradual increase in consumer confidence, which has not yet fully recovered to pre-pandemic levels. For 2024, S&P forecasts demand to increase by a further 4.2 % to 26.4 million units. The affordability of electric vehicles in China is likely to improve further in 2024, as prices for local battery cells have already fallen significantly in 2023 (see S&P Global Mobility forecast 2024 dated 14 December 2023).

The automotive market remains in a state of transition and continues to be subject to major structural changes. Innovation drivers such as autonomous and connected driving, digitalisation, electromobility and new mobility services continue to have a global impact and also influence the market for engineering services (EDL). At the same time, customer needs are changing (including the declining relevance of ‘automobile as a status symbol’), demand for automobiles is falling and political uncertainties are increasing. These trends are creating a highly dynamic environment that harbours both opportunities and risks for the EDL market.

EDAG considers itself well positioned in the market for engineering services, also in 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 here is to develop vehicles and production facilities that optimally utilise the advantages of networking. EDAG is expected to participate strongly in these positive trends. The company's strong market position, partly due to its strong international positioning, and its significantly expanded range of services will create opportunities to further consolidate existing customer relationships and establish new ones.

Also the two Group companies Antriebssysteme Faurndau GmbH and Krebs & Aulich GmbH see themselves very well positioned in the market for high-performance electric motors and expect a positive development of sales and earnings in the coming years.

ecoCOAT GmbH is looking to the future with optimism due to the market launch of the FloorZilla cleaning pads.

Mining

In the long term, the development of commodity prices is determined by the interplay 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 influence on price trends.

Moderate growth, slightly higher structural inflation, higher interest rates and ongoing geopolitical conflicts are likely to characterise developments over the next two years. The phase of weakness, which is more pronounced in Europe than in the US, will be overcome in the course of 2024. However, Chinese growth, which is very relevant for the commodities sector, is also likely to remain weak for the foreseeable future due to domestic problems. The new global equilibrium will be characterised by stronger regional production patterns in the longer term, with the global economy as a whole set to follow a flat growth path in the coming years. This means that only a moderate increase in global demand for raw materials can be expected overall. This applies in particular to cyclically sensitive commodity sectors such as industrial metals. The transition to a more sustainable economy is likely to lead to a structural increase in energy prices, but also to higher demand for certain commodities. Precious metals should also receive some support from monetary policy from mid-2024 onwards (see "DEKA Makro Research - Volkswirtschaft Rohstoffe" from January 2024). In the long term, we expect demand in the mining segment to continue to rise and therefore see good opportunities for further growth.

Due to the Redpath Group's well-filled order books, the outlook for the mining segment is considered rather positive despite the rather gloomy environment.

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. This is counteracted by the pressure to cut costs in the healthcare systems and increases in efficiency.

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 of the Ziehm Group 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

The DC Aviation Group is now authorised to operate airlines in four jurisdictions (Germany, Malta, San Marino and Dubai). At all four destinations, the Group holds its own ‘AOC’ (Aircraft Operating Certificate), i.e. a national licence to operate a commercial airline, which opens up a wide range of options for potential customers.

The same applies to the authorisation to handle private aircraft as a handling agent within the framework of a so-called ‘FBO’ (Fixed Base Operator) and to offer various ground services, including refuelling. In addition to the stations in Malta and Dubai, the joint venture at Nice Airport, one of the three most important airports for business aviation in Europe, is particularly important in this segment. The provision of technical services including hangarisation under an ‘MRO’ (maintenance, repair, overhaul) licence takes place in Germany at the locations in Stuttgart, Schwäbisch Hall and Oberpfaffenhofen, as well as in Dubai in the United Arab Emirates.

DC Aviation has an outstanding reputation in the business aviation industry in terms of service quality and safety standards. DC Aviation's comparatively low dependence on Eastern European market participants has allowed it to survive the consequences of Russia's war against Ukraine largely unscathed and in a sound financial position compared to many of its competitors. The market position achieved and the robust company substance also provide the basis for continuously expanding the size of the fleet by acquiring new corporate customers and private individuals. The opportunities and objectives of company and fleet growth lie in economies of scale in relation to the provision of shared services, procurement advantages and the opportunities that lie in the optimisation of travel routes, capacity and aircraft deployments.

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, the macroeconomic risks and currently also the geopolitical 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 should be noted that Russia's war against Ukraine in particular and the possibility of the armed conflict spreading could have a significant impact on the ATON Group's overall risk situation. It is not yet possible to predict how this crisis will be overcome, meaning that a conclusive risk assessment is not possible in this regard. However, due to the diversified structure of the Group and the available cash and cash equivalents, there should be no risks that jeopardise the Group as a going concern.

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 activities. A complete exclusion of such risks would only be possible by stopping business activities, insofar the acceptance of risks is part of entrepreneurial action.

The primary objective of risk management is to ensure the success and going concern of the companies. This involves identifying risks and opportunities of the individual subsidiaries, evaluating them, and limiting or eliminating any risks that could potentially endanger the success of companies.

The subsidiaries of ATON 2 GmbH operate in different industries, at 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 by the respective 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 by the subsidiaries' management on an ad-hoc basis to the ATON Group's management. In addition, economic, legal, technical and other risks are assessed at least every six months and discussed with ATON Group's 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 in the individual companies. For this reason, risk management and implementation of opportunities is planned and controlled by the individual companies and agreed with the holding company in short- and medium-term strategy and financial planning meetings. Key financial data is monitored by means of weekly or monthly financial reporting by the individual companies, which are analysed by the holding company for deviations. 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 ATON Group's internal control system is designed to ensure that the group wide (accounting) processes are carried out in a consistent, transparent and reliable manner as well as in compliance with legal standards and the company's internal guidelines. It comprises principles, procedures and measures to reduce risk and to ensure the effectiveness and accuracy of the 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. In the ATON Group, the areas of responsibility related to accounting are clearly structured and assigned. The central units of ATON 2 GmbH / ATON GmbH, as well as the Group companies, are responsible for the proper execution of the accounting processes. Major processes and deadlines are determined by the parent company on a Group-wide basis. Beyond that, the accounting within the ATON Group is fundamentally organised on a decentralised basis. For the most part, accounting tasks are performed by the consolidated companies at their own responsibility. The financial statements of the subsidiaries, which are prepared in accordance with IFRS and the uniform accounting policies and, where necessary, audited by the auditor, are submitted to the Group. The departments involved in the accounting process are generally appropriately staffed and funded. The employees acting have the necessary qualifications; external experts are also involved on a case-by-case basis. Control activities at Group level include analysing and, if necessary, adjusting the data reported in the financial information submitted by the subsidiaries. The Group management report is prepared centrally in accordance with the applicable requirements and regulations with the 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 against unauthorised access. Access rights are granted on a function-related basis.

Based upon documented processes, risks and controls, the internal control and risk management 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 Group management report contains forward-looking statements about expected developments. These statements are based on current estimates and are naturally subject to risks and uncertainties. The actual results may differ from the statements made in this Group management report, particularly in view of the unpredictable further development of geopolitical and trade policy risks and their economic impact.

Munich, 25 April 2024

ATON 2 GmbH
Management Board

[original German version signed by:]

Georg Denoke Dr. Wolfgang Salzberger

ATON 2 GmbH, Munich

CONSOLIDATED FINANCIAL STATEMENTS AS OF 31 DECEMBER 2023

(Translation – the German text is authoritative)

CONSOLIDATED INCOME STATEMENT 2023

in EUR '000	Note	2023	2022
Revenue	6	2,206,607	1,950,440
Changes in inventories and own work capitalised	7	11,201	15,156
Gross Revenue		**2,217,808**	**1,965,596**
Other operating income	8	46,896	65,844
Cost of materials	9	-548,495	-470,935
Personnel expenses	10	-1,171,140	-1,055,115
Impairment losses / reversal of impairment losses on financial assets	22, 23, 24	1,718	12,537
Depreciation and amortisation	17, 18	-138,106	-150,476
Other operating expenses	11	-305,864	-289,030
Earnings before interest and taxes (EBIT)		**102,817**	**78,421**
Result from investments accounted for using the equity method	12	-4,304	-58,306
Other investment result	13	-5,433	-37,453
Interest income	14	10,127	4,349
Interest expense	14	-24,597	-13,522
Other financial result	15	16,797	-17,118
Financial result		**-7,410**	**-122,050**
Earnings before income taxes (EBT)		**95,407**	**-43,629**
Income taxes	16	-33,884	2,736
Profit or loss for the period from continuing operations		**61,523**	**-40,893**
Profit or loss for the period (EAT)		**61,523**	**-40,893**
attributable to non-controlling interest		1,374	-3,761
attributable to owners of the parent		**60,149**	**-37,132**

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME 2023

in EUR '000	Note	2023	2022
Profit or loss for the period		**61,523**	-40,893
attributable to non-controlling interest		1,374	-3,761
attributable to owners of the parent		60,149	-37,132
Items that may be subsequently reclassified to profit or loss			
Currency translation differences			
Gains (+) / losses (-) from currency translation differences recognised in other comprehensive income	27	-4,293	2,195
Share of other comprehensive income for investments accounted for using the equity method	21	4,395	-23,414
		102	**-21,219**
Items that will not be reclassified to profit or loss			
Remeasurements of defined benefit plans			
Remeasurements of defined benefit plans recognised in other comprehensive income	28	-2,622	14,769
Deferred taxes on remeasurements of defined benefit plans	16	781	-4,110
Share of other comprehensive income for investments accounted for using the equity method		48	113
		-1,793	10,772
Other comprehensive income before income taxes		**-2,472**	**-6,337**
Income taxes on other comprehensive income		**781**	**-4,110**
Other comprehensive income, net of income taxes		**-1,691**	**-10,447**
attributable to non-controlling interest		-371	2,442
attributable to owners of the parent		-1,320	-12,889
Total comprehensive income for the period		**59,832**	**-51,340**
attributable to non-controlling interest		1,003	-1,319
attributable to owners of the parent		58,829	-50,021

CONSOLIDATED BALANCE SHEET AS OF 31.12.2023

Assets in EUR '000	Note	31.12.2023	31.12.2022
Goodwill	17	281,961	282,570
Other intangible assets	17	60,436	75,737
Property, plant and equipment	18	593,481	554,329
Reparable aircraft spare parts		205	332
Other financial assets	22	95,262	91,580
Investments accounted for using the equity method	21	81,708	86,710
Trade and other receivables	23	5,844	6,273
Deferred tax assets	16	37,394	41,557
Non-current assets		**1,156,291**	**1,139,088**
Inventories	25	140,476	131,963
Trade and other receivables	23	453,584	392,097
Other financial assets	22	105,574	122,692
Income tax receivables	16	10,511	18,818
Contract assets	24	87,192	75,317
Cash and cash equivalents	26	330,892	383,457
Current assets		**1,128,229**	**1,124,344**
Total assets		**2,284,520**	**2,263,432**

CONSOLIDATED BALANCE SHEET AS OF 31.12.2023

Equity and liabilities in EUR '000	**Note**	**31.12.2023**	**31.12.2022**
Equity attributable to owners of the parent *	27	1,141,855	1,230,800
Non-controlling interest	27	8,235	12,938
Equity	27	**1,150,090**	**1,243,738**
Provisions for pensions	28	38,829	34,811
Provisions for income taxes	29	159	137
Other provisions	29	7,504	7,142
Financial liabilities	17, 30	424,577	355,742
Trade and other payables	31	22,507	16,947
Deferred tax liabilities	16	38,697	42,755
Contract liabilities	24	3,418	3,280
Non-current liabilities		**535,691**	**460,814**
Provisions for income taxes	29	5,235	10,703
Other provisions	29	37,644	36,644
Financial liabilities	17, 30	197,350	158,205
Trade and other payables	31	297,057	249,307
Income tax liabilities	16	5,112	18,562
Contract liabilities	24	56,341	85,459
Current liabilities		**598,739**	**558,880**
Total equity and liabilities		**2,284,520**	**2,263,432**

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

STATEMENT OF CHANGES IN EQUITY AS OF 31.12.2023

in EUR ’000	Equity attributable to owners of the parent							
				Other comprehensive income				
	Sub-scribed capital	**Capital reserve**	**Retained earnings incl. profit or loss**	**Currency translation differences**	**Remea-surements of defined benefit plans**	**Total**	**Non-controlling interest**	**Equity**
Balance as of 1st January 2022	**265,025**	**73,356**	**1,074,719**	**- 21,426**	**- 5,403**	**1,386,271**	**7,589**	**1,393,860**
Equity transactions with shareholders								
Changes in the scope of consolidation	-	-	-	-	-	-	2,485	2,485
Capital decrease	- 100,000	-	-	-	-	- 100,000	-	- 100,000
Acquisition / Sale of non-controlling interests	-	-	- 5,450	-	-	- 5,450	5,450	-
Profit transfer to shareholders / dividend payments	-	-	-	-	-	-	- 1,267	- 1,267
	- 100,000	-	- 5,450	-	-	- 105,450	6,668	- 98,782
Total comprehensive income for the period								
Other comprehensive income, net of income taxes 2022	-	-	-	- 21,247	8,358	- 12,889	2,442	- 10,447
Profit or loss 2022	-	-	- 37,132	-	-	- 37,132	- 3,761	- 40,893
	-	-	- 37,132	- 21,247	8,358	- 50,021	- 1,319	- 51,340
Balance as of 31 December 2022	**165,025**	**73,356**	**1,032,137**	**- 42,673**	**2,955**	**1,230,800**	**12,938**	**1,243,738**
Balance as of 1st January 2023	**165,025**	**73,356**	**1,032,137**	**- 42,673**	**2,955**	**1,230,800**	**12,938**	**1,243,738**
Equity transactions with shareholders								
Changes in the scope of consolidation	-	-	-	-	-	-	-	-
Capital decrease	- 150,000	-	-	-	-	- 150,000	-	- 150,000
Acquisition / Sale of non-controlling interests	-	-	2,223	-	-	2,223	- 2,223	-
Profit transfer to shareholders / dividend payments	-	-	-	-	-	-	- 3,483	- 3,483
Other changes	-	-	2	-	-	2	-	2
	- 150,000	-	2,225	-	-	- 147,775	- 5,706	- 153,481
Total comprehensive income for the period								
Other comprehensive income, net of income taxes 2023	-	-	-	18	- 1,337	- 1,319	- 371	- 1,690
Profit or loss 2023	-	-	60,149	-	-	60,149	1,374	61,523
	-	-	60,149	18	- 1,337	58,830	1,003	59,833
Balance as of 31 December 2023	**15,025**	**73,356**	**1,094,511**	**- 42,655**	**1,618**	**1,141,855**	**8,235**	**1,150,090**

CONSOLIDATED STATEMENT OF CASH FLOWS 2023

Cash and cash equivalents corresponds to the balance sheet item cash and cash equivalents.

in EUR '000	Note	2023	2022
Income before interest, dividends and income taxes	32	107,513	- 37,008
Income taxes paid	16	- 42,950	- 18,441
Interest paid	14	- 23,354	- 14,032
Interest received	14	7,967	2,904
Dividends received		6,737	3,056
Depreciation and amortisation / write-ups of assets		130,592	195,098
Change in provisions		2,101	2,582
Other non-cash transactions		3,036	52,776
Result from the disposal of property, plant and equipment		- 3,487	- 1,046
Result from the disposal of securities		- 1,802	- 547
Result from the disposal / deconsolidation of consolidated subsidiaries	5	-	- 32
Change in other assets		- 81,514	- 57,713
Change in other liabilities		28,304	- 33,189
Cash flow from operating activities		**133,143**	**94,408**
Investments in intangible assets	17	- 11,881	- 11,610
Proceeds from the disposal of intangible assets	17	1,059	142
Investments in property, plant and equipment	18	- 71,659	- 71,398
Proceeds from the disposal of property, plant and equipment	18	7,721	8,345
Investments in financial assets / associates		- 38,823	- 84,133
Proceeds from the disposal of financial assets		53,220	129,530
Cash outflow from the acquisition of consolidated subsidiaries		- 3,455	- 3,892
Cash flow from investing activities		**- 63,818**	**- 33,016**
Proceeds from shareholders		68,000	19,000
Payments to shareholders		- 170,483	- 137,827
Repayments of lease liabilities		- 61,326	- 52,519
Proceeds from bank loans		182,755	57,008
Repayments of bank loans		- 138,573	- 93,228
Cash flow from financing activities		**- 119,627**	**- 207,566**
Change in cash and cash equivalents		- 50,302	- 146,174
Effect of changes in exchange rates		- 2,263	531
Cash and cash equivalents at the beginning of the period		383,457	529,100
Cash and cash equivalents at the end of the period	26	**330,892**	**383,457**

Notes to the consolidated financial statements 2023

Contents

1. General information

ATON 2 GmbH (ATON 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 229865.

ATON 2 GmbH and its subsidiaries (collectively, the "Group") are organised globally 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 2 GmbH as of 31 December 2023 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.

Dr. Lutz Helmig in turn exercises control over ATON 2 GmbH.

As the parent company of the Group, ATON 2 GmbH prepares the mandatory consolidated financial statements in accordance with IFRS. These are submitted electronically to the company register and published via the publication platform (joint portal of the Federal Gazette and the company register). The shareholders still have the theoretical option of amending the financial statements within the framework of the statutory provisions.

The consolidated financial statements are prepared in Euro. Unless indicated otherwise, all amounts are rounded either up or down to the nearest thousand (k EUR) 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 are summarised 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 maturity of the assets and liabilities. Assets and liabilities are considered to be current if they are due or for settlement or disposal within one year or within the normal business cycle of the company or the Group. 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 uniform 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 relating to 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 2023, which consist of:

- Amendments to IAS 12 Income Taxes: International Tax Reform - Pillar 2 modelling rules: The ATON Group has made use of the exception to the rules in IAS 12 published in November 2023, under which an entity does not recognise and disclose deferred tax assets and liabilities relating to OECD Pillar 2 income taxes.

- Amendments to IAS 12 Income Taxes: Deferred Taxes in Connection with Assets and Liabilities from a Single Transaction.

- Amendments to IAS 1 + IFRS Practice Statement 2: Definition of the scope of the explanation of accounting policies based on materiality. According to this amendment, the Group only has to make material disclosures about its accounting policies. These disclosures are material if, when considered together with other information contained in the financial statements, they could reasonably be expected to influence the decisions of the primary users. Although immaterial disclosures are permitted, they must not obscure the material disclosures.

- Amendment to IAS 8: Definition of an accounting estimate and other changes that make it easier for companies to distinguish changes in estimates from changes in accounting policies. The clarification of the distinction did not result in any (material) changes in the ATON Group.

None of those applied standards had a material effect on the consolidated financial statements, and changes to the consolidated financial statements were avoided by utilising the exception in IAS 12 with regard to Pillar 2.

New or amended standards and interpretations not applied

Standards/ amendments		EU Endorse-ment	Mandatory application*1)	Expected effect
Amendments to IAS 1	Classification of Liabilities as Current or Non-current / Non-current Liabilities with Covenants	Yes	01.01.2024	No material effects
Amendments to IFRS 16	Lease liability in a sale-and-lease-back transactions	Yes	01.01.2024	No material effects
Amendments to IAS 7 / IFRS 7	Disclosure of supplier finance arrangements: Additional information regarding factoring agreements	No	01.01.2024	No material effects
Amendments to IAS 21	The Effects of Changes in Foreign Exchange Rates: Lack of exchangeability	No	01.01.2025	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.

In December 2021, the Organisation for Economic Co-operation and Development (‘OECD’) published model rules for the reform of international corporate taxation. The rules are designed to ensure that affected large multinational companies pay a minimum level of tax on income earned in a given period in each jurisdiction in which they operate. In principle, a system of additional taxes is used that raises the minimum tax rate in the jurisdiction concerned to 15 %. Based on this, a statutory regulation to ensure global minimum taxation (OECD Pillar 2) was enacted in Germany with the ‘Act Implementing Council Directive (EU) 2022/2523 to ensure global minimum taxation and other accompanying measures’. In other countries in which the ATON Group operates, particularly in the European Union, corresponding laws on global minimum taxation have either already been enacted or are currently being implemented. ATON will fall within the scope of the Minimum Tax Act from the financial year 2024 onwards, which is why there was no actual tax expense under this law as at the reporting date. In the financial year, the ATON Group utilised the exemption under IAS 12.4A, according to which no deferred taxes need to be recognised in connection with the global minimum taxation. Due to the complexity of the regulations and the fact that the legislative process has not yet been finalised in many countries, it is not yet possible to reliably determine the exact amount of the future burden. However, the ATON Group assumes that no significant minimum tax burdens are to be expected from the future application of the German Minimum Tax Act or corresponding foreign laws.

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 2 GmbH, the consolidated financial statements include all material subsidiaries. Subsidiaries are all entities that are controlled by the parent company. The parent company controls an entity when it 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 parent company gains control. When control over the entity 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 is recognised at fair value at the acquisition date. Subsequent changes in the fair value of the contingent consideration classified as an asset or liability are measured and any resulting gain or loss is recognised in the income statement.

In the case of step acquisitions, the previously acquired equity interest is remeasured at its fair value at the acquisition date. Transactions regarding non-controlling interests not resulting in a loss of control are recognised as an equity transaction directly in equity. At the date of loss of control, any remaining interest is remeasured to fair value through profit or loss.

Intercompany profits or losses and income and expenses arising from transactions within the scope of consolidation, as well as receivables and liabilities existing between consolidated companies, are eliminated. Gains and losses from intra-group transactions regarding fixed assets and inventories 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 no joint arrangement exists. This does not include investments accounted for as non-current assets held for sale and discontinued operations under IFRS 5.

Based on the acquisition costs at the date of acquisition of the investment in an associate, the relevant carrying amount of the investment is increased or reduced annually by the Group's share of profits or losses, reduced by dividends paid to the ATON Group as well as by changes in other comprehensive income of the associate, to the extent attributable to the ATON Group's interest. Goodwill arising from the acquisition of an associate is included in the carrying amount of the investment. This is not amortised, but tested for impairment as part of the overall investment in the associate.

If the losses attributable to the ATON Group from an investment accounted for using the equity method equal or exceed its interest in the associate, no further share of losses is recognised, unless the Group has incurred legal or constructive obligations or made payments on behalf of the associate.

Unrealised gains and losses resulting from transactions of Group companies with associates are eliminated proportionally in the income for those companies.

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 structure of 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 comments on associates.

As of 31 December 2023, the scope of consolidation is as follows:

	Germany	International	Total	31.12.2022
Fully consolidated companies	16	71	87	85
Associates	3	5	8	8
Joint ventures	18	10	28	23
Fully consolidated companies (at fair value)	4	3	7	7
Companies within the scope of consolidation	**41**	**89**	**130**	**123**

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 revenue, profit or loss for the year and total assets amounts to less than 1 % of consolidated revenue, the consolidated income for the year and total consolidated assets, and are therefore not relevant for the presentation of a true and fair view of the Group's net assets, financial position, results of operations, 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 to make 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 2 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 currency financial statements have developed in relation to the Euro as follows (in each case for 1 EUR):

Country	Currency		2023		2022	
	Units per Euro		Closing rate	Average rate	Closing rate	Average rate
Australia	Dollar	AUD	1.6263	1.6288	1.5693	1.5167
Brazil	Real	BRL	5.3618	5.4010	5.6386	5.4399
China	Renminbi	CNY	7.8509	7.6600	7.3582	7.0788
United Kingdom	Pound	GBP	0.8691	0.8698	0.8869	0.8528
India	Rupee	INR	91.9045	89.3001	88.1710	82.6864
Japan	Yen	JPY	156.3300	151.9900	140.6600	138.0300
Canada	Dollar	CAD	1.4642	1.4595	1.4440	1.3695
Korea	Won	KRW	1,433.6600	1,412.8800	1,344.0900	1,358.0700
Malaysia	Ringgit	MYR	5.0775	4.9320	4.6984	4.6279
Mexico	Peso	MXN	18.7231	19.1830	20.8560	21.1869
Namibia	Dollar	NAD	20.1776	19.9366	18.1214	17.1833
Norway	Krone	NOK	11.2405	11.4248	10.5138	10.1026
Poland	Zloty	PLN	4.3395	4.5420	4.6808	4.6861
Romania	Leu	RON	4.9756	4.9467	4.9495	4.9313
Russian Federation	Rouble	RUB	99.1919	92.1855	75.6553	72.5717
Zambia	Kwacha	ZMW	28.4400	21.7486	19.2285	17.8860
Sweden	Krona	SEK	11.0960	11.4788	11.1218	10.6296
Switzerland	Franc	CHF	0.9260	0.9718	0.9847	1.0047
Singapore	Dollar	SGD	1.4591	1.4523	1.4300	1.4512
South Africa	Rand	ZAR	20.3477	19.9551	18.0986	17.2086
Czech Republic	Koruna	CZK	24.7240	24.0040	24.1160	24.5660
Hungary	Forint	HUF	382.8000	381.8500	400.8700	391.2900
USA	Dollar	USD	1.1050	1.0813	1.0666	1.0530

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 carried out also 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. If necessary to achieve a sustainable planning year, the planning period will be extended to five 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 7.4 % and 10.0 % (previous year: 6.3 % and 10.6 %) 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’.

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**.

3.2. 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.

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 67
Technical equipment and machinery	2 to 25
Other equipment, fixtures and fittings	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 2023 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 recognised 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.

The Group as lessee

Lessees recognise 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 economic 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 recognised in profit or loss.

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. It must also be expected that the sale will be completed within one year. 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 recognised 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 expense can be clearly allocated, it is recognised in the corresponding expense item in the income statement. If the allocation is not clearly possible because different types of expense are involved (e.g. in the case of onerous contract projects), the expense is recognised as other operating expenses. 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 recognised, 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, developing tools which are used in subsequent series production.
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.
High-performance electric motors	x			The Group recognises revenues, depending on the delivery terms, after delivery to and acceptance by 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 to 60 days after delivery or billing.
Injection moulded parts (series production)	x			The Group produces innovative and complex components in series production on demand from international automotive manufacturers. Revenue recognition, depending on the delivery terms, takes place after delivery and acceptance by the customer, since at this point in time the power of disposition is regularly transferred to 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 in-voicing since this reflects the benefits, which has been trans-ferred 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.

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 recognised. 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

When preparing the consolidated financial statements, assumptions and estimates are made to a certain extent that affect the amount and presentation of the assets and liabilities, income and expenses and the contingent liabilities recognised for the reporting period. The assumptions and estimates are based premises that are based on the state of knowledge currently available. However, the uncertainty associated with these assumptions and estimates could result in future adjustments to the carrying amount of the assets or liabilities affected.

The significant estimates and related assumptions listed below as well as the uncertainties associated with the accounting policies adopted are critical to understanding the risks underlying the financial reporting and the effects that these estimates, assumptions and uncertainties may have on the financial statements.

Estimates are especially required for the following 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 acquisition date. Furthermore, the expected useful lives of the assets must be estimated. The determination of the fair values of assets and liabilities and of the useful lives of the assets is based on management assessments.

Impairment of goodwill

The Group tests goodwill for possible impairment at least once a year. The determination 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- or five-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 key assumptions underlying the determination of the discounted cash flows comprise estimated growth rates, weighted interest rates and tax rates. These assumptions can have a significant effect on the respective amounts and therefore on the extent to which goodwill is impaired.

Impairment of property, plant and equipment and intangible assets

The identification of impairments, the estimation of future cash flows and the determination of the fair values of assets or groups of assets require significant judgement by management in identifying and testing for indications of impairment, expected cash flows, appropriate discount rates, respective useful lives and any residual values.

Revenue recognition based on the performance obligations satisfied over time in accordance with IFRS 15

In some companies, in particular within the EDAG Group and the Redpath Group, revenue is recognised over a period of time for a large part of the business. In the construction projects business, revenue is often recognised over the period of time where the performance obligation is satisfied. In order to determine the stage of completion, the total project costs and revenues as well as project risks are among the key 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 according to 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 categories and the default probabilities recorded there. In a changing market and competitive environment, the estimate of a debtor's creditworthiness made at the reporting date may differ during the course of the year. The risk allowance recognised can thus be recorded too low / high. Furthermore, the probability of default represents a statistical measure, which may also require adjustments to the risk 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-related information. The forward-related information has proved to be a suitable indicator for the amounts of impairments 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 recognition of risk allowances. In addition, material effects from the past can distort the risk allowance, which may also require 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 obtained at the reporting date for high-quality corporate bonds with matching currencies and maturities. As a result of the changing situation in the market and the economy and the long-term orientation of these pension plans, the underlying assumptions 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 present value of the defined benefit obligation would have been affected by changes in the significant actuarial assumptions, reference is made to note **28. Provisions for pensions**.

Provisions

The determination of provisions for imminent losses from onerous contracts, provisions for warranties and provisions for litigation is dependent to a considerable extent on estimates of the likelihood of a future outflow of resources, as well as on 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 from a variety of methods. The underlying assumptions are largely based 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 can 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 the 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 Russia's war against Ukraine and other geopolitical tensions and the resulting energy price increases and inflation

Due to Russia's ongoing war against Ukraine since 24 February 2022 and other geopolitical tensions, the resulting energy price increases and the still above-average inflation, the estimates and judgements listed above are still subject to increased uncertainty. The amounts actually realised may differ from these estimates and judgements. 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.

The information was included in particular regarding 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 **21. Investments accounted for using the equity method** and 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 occurred in the scope of consolidation and regarding associated companies during the reporting period:

The joint venture RDMI FREEZING JV Ltd, Whatton, Nottingham, UK, in which 59.0 % is held via Redpath Deilmann GmbH and 1.0 % via Redpath Deilmann UK Limited, was founded and is fully consolidated since 2023.

ARGE HWB Konrad, Mülheim an der Ruhr, was founded as a joint venture on 17 April 2023. 50.0 % of this joint venture is held via Redpath Deilmann GmbH. The company is accounted for using the equity method.

As a result of unilateral capital increases at OneFiber Interconnect Germany GmbH, Munich, carried out by ATON Digital Services GmbH on 10 March, 28 June and 7 December 2023 the shareholding in the company increased step-by-step from 91.24 % to 93.75 %, then to 95.19 % and finally to 96.09 %. For reasons of materiality, the company continues to be accounted for using the equity method.

On 18 July 2023, DC Aviation San Marino S.R.L., Dogana / San Marino, was founded as a wholly owned subsidiary of DC Aviation Al Futtaim LLC, Dubai / U.A.E.. As only 49.0 % of DC Aviation Al Futtaim LLC, Dubai / U.A.E. is held by ATON Group, the newly founded company is not fully consolidated.

On 26 July 2023, the 6.0 % share in Autotest Eisenach GmbH, Ohrdruf, held by Autotest Südtirol GmbH was sold. The sale resulted in neither a material gain on disposal nor a material cash inflow.

J.S. Redpath Peru S.A.C., Lima / Peru, was liquidated with effect from 2 August 2023.

EDAG Engineering Austria GmbH, Steyr / Austria, was founded on 29 August 2023. The wholly owned subsidiary is fully consolidated.

ARGE Verfüllung Gorleben, Dortmund, was founded on 4 September 2023. Redpath Deilmann GmbH holds a 50.0 % interest in this joint venture. The company is accounted for using the equity method.

ARGE Innenschale Ibbenbüren Schacht 1, Dortmund, was founded on 1 October 2023. Redpath Deilmann GmbH holds a 60.0 % interest in this joint venture. The company is accounted for using the equity method.

Following the conversion of a convertible loan on 8 November 2023, ATON Digital Services GmbH now holds a 1.34 % interest in Grey Orange International Inc. in Roswell / USA. The investment is accounted for at fair value.

The joint venture JV Freezing HS2, Dortmund, was dissolved on 1 December 2023.

Black Diamond - Redpath GP Inc., Matheson / Canada, was founded on 5 December 2023. 49.0 % of this joint venture is held via Redpath Canada Limited. The company is accounted for using the equity method.

Ziehm Imaging Middle East Trading LLC, Dubai / U.A.E. was founded on 11 December 2023. The wholly owned subsidiary of Ziehm Imaging GmbH is fully consolidated.

ARGE Schächte Heilbronn, Dortmund, was founded on 31 December 2023. Redpath Deilmann GmbH holds a 50.0 % interest in this joint venture. The company is accounted for using the equity method.

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	617,243	28,900	44,956	56,252	5,614	752,965
North America	46,485	323,344	72,111	350	-	442,290
Europe (excluding Germany)	173,359	155,740	67,530	22,305	-	418,934
Asia	65,384	143,028	35,917	26,282	-	270,611
Australia	-	236,515	1,324	78	-	237,917
Africa	1,162	64,541	7,464	1,381	-	74,548
South America	5,595	706	3,041	-	-	9,342
Total revenue	**909,228**	**952,774**	**232,343**	**106,648**	**5,614**	**2,206,607**
Type of revenues						
Revenue from rendering of services	848,425	951,680	30,834	106,648	-	1,937,587
Revenue from sales of goods	60,801	1,094	201,389	-	5,429	268,713
Other operating revenue	2	-	120	-	185	307
Total revenue	**909,228**	**952,774**	**232,343**	**106,648**	**5,614**	**2,206,607**
Revenue recognition						
Over a period of time	823,889	952,774	18,093	87,770	-	1,882,526
At a point in time	85,339	-	214,250	18,878	5,614	324,081
Total revenue	**909,228**	**952,774**	**232,343**	**106,648**	**5,614**	**2,206,607**

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	495,029	27,978	40,884	86,581	166	650,638
North America	51,863	271,659	71,570	4,101	-	399,193
Europe (excluding Germany)	164,133	60,177	54,593	30,647	-	309,550
Asia	130,548	151,329	29,368	4,180	-	315,425
Australia	508	190,452	984	-	-	191,944
Africa	9	70,788	2,106	1,173	-	74,076
South America	4,581	2,032	3,001	-	-	9,614
Total revenue	**846,671**	**774,415**	**202,506**	**126,682**	**166**	**1,950,440**
Type of revenues						
Revenue from rendering of services	798,855	772,610	26,714	126,682	123	1,724,984
Revenue from sales of goods	47,816	1,805	175,647	-	13	225,281
Other operating revenue	-	-	145	-	30	175
Total revenue	**846,671**	**774,415**	**202,506**	**126,682**	**166**	**1,950,440**
Revenue recognition						
Over a period of time	774,315	774,415	16,366	126,682	-	1,691,778
At a point in time	72,356	-	186,140	-	166	258,662
Total revenue	**846,671**	**774,415**	**202,506**	**126,682**	**166**	**1,950,440**

7. Changes in inventories and own work capitalised

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

in EUR '000	2023	2022
Changes in inventories of goods and services	3,550	8,869
Own work capitalised	7,651	6,287
Changes in inventories and own work capitalised	**11,201**	**15,156**

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

The increase in inventories compared to the previous year is due to an increase in unfinished and thus products and services not yet invoiced and therefore unbilled goods and services, particularly in the segments Med Tech, Engineering and Mining.

Own work capitalised in the reporting period mainly includes own work of the Ziehm Group amounting to EUR 6,941k (previous year: EUR 5,180k).

8. Other operating income

Other operating income comprises the following:

in EUR '000	2023	2022
Operating income		
Government grants	10,410	8,384
Miscellaneous operating income	6,302	7,548
Monetary advantage company cars	5,078	5,122
Income from compensation	4,408	1,087
Income from subleases	2,047	2,024
Income from insurance compensation	1,206	9,988
Rental and lease income	196	844
Income from external services and cost transfers to third parties	123	190
Income from recycling / scrap disposal	120	208
Income from cost reimbursements	23	411
Income from catering / canteen	-	48
Operating income	**29,913**	**35,854**
Non-operating income		
Currency translation gains	5,242	10,493
Income from the disposal and write-ups of intangible assets and property, plant and equipment	5,205	4,123
Income from the reversal of provisions / derecognition of liabilities	3,985	7,585
Miscellaneous non-operating income	1,965	7,034
Income from other periods	420	161
Income from hedging transactions	166	562
Income from the disposal / deconsolidation of consolidated companies	-	32
Non-operating income	**16,983**	**29,990**
Other operating income	**46,896**	**65,844**

Other operating income decreased by EUR 18,948k compared to the previous year. In particular, income from insurance compensation, currency translation gains, miscellaneous non-operating income and income from the reversal of provisions / derecognition of liabilities fell. In contrast, income from compensation payments and income from disposals and write-ups of fixed assets increased.

The decline in currency translation gains is attributable to all segments, most of which is attributable to the Med Tech segment.

The increase in government grants is largely attributable to the Engineering segment.

The decrease in income from insurance compensation is primarily attributable to the Mining segment. This decline was partially offset by increased income from compensation payments in the Engineering segment.

The decrease in income from the reversal of provisions / derecognition of liabilities is attributable to the Engineering, Mining and Med Tech segments.

The increase in income from the disposal and write-ups of intangible assets and property, plant and equipment is mainly attributable to the Mining segment.

The items miscellaneous operating income and miscellaneous non-operating income are made up of a large number of individual items, with miscellaneous non-operating income in the previous year primarily comprising the badwill recognised in profit or loss from the initial consolidation of Autotest Südtirol GmbH in the amount of EUR 6,163k.

9. Cost of materials

The cost of materials breaks down as follows:

in EUR '000	2023	2022
Cost of raw materials, consumables and supplies and of purchased merchandise	333,153	281,005
Cost of purchased services	215,342	189,930
Cost of materials	**548,495**	**470,935**

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

in EUR '000	2023	2022
Engineering	53,489	51,800
Mining	152,097	108,282
Med Tech	93,337	84,747
Aviation	27,625	36,057
Holding/Consolidation	6,605	119
Cost of raw materials, consumables and supplies and of purchased merchandise	**333,153**	**281,005**

The costs mainly relate to expenses for purchased parts, 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	2023	2022
Engineering	89,319	79,593
Mining	79,438	52,103
Med Tech	3,637	4,768
Aviation	43,121	53,542
Holding/Consolidation	- 173	- 76
Cost of purchased services	**215,342**	**189,930**

The cost of purchased services primarily consists of costs for subcontractors and purchased inputs for the provision of services.

10. Personnel expenses

The personnel expenses are attributable to the following items:

in EUR '000	2023	2022
Wages and salaries	991,662	887,901
Expenses for social security, retirement and other employee benefit expenses	179,478	167,213
Personnel expenses	**1,171,140**	**1,055,114**

Expenses for retirement include, among other things, expenses for defined benefit pension commitments. Due to its financing 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 **28**. **Provisions for pensions**.

Personnel expenses include EUR 73k (previous year: EUR 362k) of government grants, mainly in Germany, for short-working compensation including social security contributions, which are netted within personnel expenses.

In addition, government wage subsidies of EUR 683k (previous year: EUR 753k) were granted, which are reported under other operating income.

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

Number	2023	2022
Industrial workers	3,746	3,867
Salaried staff	11,469	10,513
Total employees excluding trainees	**15,215**	**14,380**
Trainees	379	330

11. Other operating expenses

Other operating expenses comprise the following:

in EUR '000	2023	2022
Operating expenses		
Administration costs	57,561	52,577
Travelling expenses	54,394	45,847
Legal and consulting costs, audit costs	32,468	29,165
Maintenance	32,244	32,318
Other expenses for leasing contracts	18,924	17,208
Selling and marketing costs	16,739	13,792
Leasing expenses from short-term leases	13,045	10,064
Insurances	12,343	9,809
Other incidental personnel expenses	12,319	11,502
Education and training costs	7,881	7,910
Other taxes and levies	7,361	7,489
Leasing expenses from low-value leases	5,515	5,248
Expenses from additions to provisions	4,643	17,571
Research and development costs	3,499	3,594
Incidental rental costs and cleaning expenses	1,610	1,540
Car expenses	1,609	1,357
Expenses from security services	593	515
Incidental costs of monetary transactions	296	600
Expenses from cost transfers third parties	261	291
Variable leasing expenses (not included in lease liabilities)	210	338
Non-deductible input tax	193	318
Miscellaneous operating expenses	9,116	9,292
Operating expenses	**292,824**	**278,345**
Non-operating expenses		
Currency translation losses	10,675	8,288
Expenses from the disposal of property, plant and equipment	1,719	2,053
Expense from hedging transactions	123	-
Miscellaneous non-operating expenses	365	160
Expenses from other periods	158	184
Non-operating expenses	**13,040**	**10,685**
Other operating expenses	**305,864**	**289,030**

Other operating expenses increased by EUR 16,834k compared to the previous year.

In particular, expenses for travelling expenses, administration costs, legal and consulting costs, selling and marketing costs, insurances, lease expenses from short-term leases and currency translation losses increased. By contrast, expenses from additions to provisions, expenses from the disposals of property, plant and equipment and incidental costs of monetary transactions in the financial year 2023 are below the previous year's figures.

The items miscellaneous operating expenses and miscellaneous non-operating expenses comprise a large number of smaller, insignificant 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 -4,304k (previous year: EUR -58,306k) and is mainly due to the negative income effect for Murray & Roberts Holdings Limited, which is partially offset by positive income effects from the joint ventures of the Redpath Group. 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	2023	2022
Result from the write-ups / disposal of investments	10,594	335
Expenses from the impairment of investments	- 16,027	- 37,788
Other investment result	**- 5,433**	**- 37,453**

The result from the write-ups / disposal of investments and the expenses from the impairment of investments result exclusively from the valuation of the investment in Murray & Roberts Holdings Limited at the stock market price on the balance sheet date.

As a minority shareholder in Murray & Roberts Holdings Limited, we do not obtain any multi-year plans for the valuation of the investment based on the discounted cash flow method. Consequently, the stock market price is used as the best possible fair value for the valuation as of balance sheet date

In the previous year, in addition to the valuation effects for Murray & Roberts Holdings Limited, the write-up of the investment in ecoCOAT GmbH, Allershausen, recognised in profit or loss as part of the revaluation at fair value immediately before full consolidation was presented in the amount of EUR 335k.

14. Net interest expense

The net interest expense comprises the following:

in EUR '000	2023	2022
Interest income		
Interest income from credit institutions	6,553	1,098
Interest and similar income from related parties	2,826	2,875
Other interest income	748	376
	10,127	**4,349**
Interest expenses		
Interest expenses to credit institutions and bondholders	10,255	5,577
Interest expenses from lease agreements	9,539	5,653
Net interest expenses from defined benefit pension plans	1,282	547
Interest and similar expenses to related parties or shareholder	1,128	279
Other interest expenses	2,393	1,466
	24,597	**13,522**
Net interest result	**- 14,470**	**- 9,173**

15. Other financial result

The other financial result comprises the following:

in EUR '000	2023	2022
Other financial income		
Gains from fair value measurement	21,098	9,967
Interest and dividend income from securities	2,871	3,146
Income from sale of securities	1,857	584
Other financial income	875	1,061
	26,701	**14,758**
Other financial expenses		
Losses from fair value measurement	9,816	31,667
Losses from sale of securities	55	37
Other financial expenses	33	172
	9,904	**31,876**
Other financial result	**16,797**	**- 17,118**

Gains and losses from fair value measurement result mainly from the securities held.

16. Income taxes

The income taxes reported include taxes on income and deferred taxes.

The income taxes for the financial years 2023 and 2022 break down as follows:

in EUR '000	2023	2022
Income taxes		
Income taxes for the current year	31,857	29,947
Income taxes for previous years	651	87
Income from the reversal of provisions for income taxes	- 5	- 62
	32,503	**29,972**
Deferred taxes		
Deferred taxes from temporary differences	- 1,224	- 13,939
Deferred taxes on losses carried forward	2,605	- 18,769
	1,381	**- 32,708**
Income taxes (+ = expenses / - = income)	**33,884**	**- 2,736**

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.

Unchanged to 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 %. 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 %.

In the following income taxes of the reporting period amounting to EUR 33,884k (previous year: tax income amounting to EUR 2,736k) are reconciled from an expected income tax expense that would have resulted from applying the parent company's statutory income tax to earnings before income taxes (EBT) reported in the consolidated financial statements:

	2023		2022	
	EUR '000	**in %**	**EUR '000**	**in %**
Earnings before income taxes (EBT)	**95,407**		**- 43,629**	
Income tax rate of the parent		32.98%		32.98%
Expected income tax expense	**31,465**		**- 14,389**	
Tax-free income and non-deductible expenses, incl. the effect of sections 8a / 8b of the KStG (corporate tax law) as well as permanent differences	12,408	13.01%	32,730	-75.02%
Income taxes for previous years	646	0.68%	35	-0.08%
Tax rate variances	- 9,298	-9.75%	- 4,337	9.94%
Amount of tax losses carried forward and other deferred tax assets not recognised or impaired	1,667	1.75%	4,791	-10.98%
Effects from the recognition of deferred taxes for tax loss carry forwards previously not expected to be utilised	- 5,598	-5.87%	- 25,520	58.49%
Non-deductible withholding taxes	3,199	3.35%	3,223	-7.39%
Other tax effects	- 605	-0.63%	731	-1.68%
Income taxes reported in the consolidated income statement	**33,884**		**- 2,736**	
Effective tax rate		**35.51%**		**6.27%**

As in the previous year, the item 'Tax-free income and non-deductible expenses, incl. the effect of sections 8a / 8b of the KStG (corporate tax law)' mainly relates to non-taxable write-ups / impairments on shareholdings (primarily Murray & Roberts) and loans.

Tax rate variances result mainly from the Redpath Group, the EDAG Group and the Ziehm Group.

In the previous year, the item 'Effects from the recognition of deferred taxes for tax loss carry forwards previously not expected to be utilised' mainly relates to the tax loss carry forwards of one company, which were estimated to be usable for the first time in 2022 and were therefore recognised.

Current and deferred taxes compose as follows:

in EUR '000	31.12.2023	31.12.2022
Income tax receivables / liabilities on the balance sheet		
Income tax receivable	10,511	18,818
Income tax liabilities	- 5,112	- 18,562
Provisions for income taxes	- 5,394	- 10,840
	5	**- 10,584**
Deferred taxes on the balance sheet		
Deferred tax assets	37,394	41,557
Deferred tax liabilities	- 38,697	- 42,755
	- 1,303	**- 1,198**
Net receivables / liabilities on the balance sheet	**- 1,298**	**- 11,782**

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

in EUR '000	31.12.2023	31.12.2022
Deferred tax assets		
Intangible assets	1,013	410
Property, plant and equipment	396	229
Financial assets	129	164
Inventories	5,957	5,270
Receivables and other assets	816	743
Provisions for pensions	7,089	5,791
Other provisions	9,575	10,531
Other liabilities	94,551	98,527
Losses carried forward	32,539	35,602
Netting	- 114,671	- 115,710
	37,394	**41,557**
of which: non-current before netting	**41,166**	**42,196**
Deferred tax liabilities		
Intangible assets	13,990	18,247
Property, plant and equipment	105,685	101,585
Financial assets	2,569	1,733
Inventories	3	23
Receivables and other assets	24,756	24,134
Provisions for pensions	0	-
Other provisions	6,092	5,672
Other liabilities	273	7,071
Netting	- 114,671	- 115,710
	38,697	**42,755**
of which: non-current before netting	**122,244**	**121,565**
Deferred taxes, net	**- 1,303**	**- 1,198**

The deferred taxes changed as follows:

in EUR '000	2023	2022
Deferred taxes at the beginning of the financial year	- 1,198	- 29,930
Changes in the scope of consolidation	-	- 61
Recognised in profit or loss	- 1,381	32,708
Recognised directly in equity without income statement effect	781	- 4,110
Currency translation differences	495	195
Deferred taxes at the end of the financial year	**- 1,303**	**- 1,198**

The high deferred taxes recognised in profit or loss in the previous year resulted primarily from the expected usability of tax loss carry forwards for the first time in 2022.

In the previous year, the changes in the scope of consolidation amounting to EUR -61k resulted from the acquisitions of ecoCOAT GmbH and Autotest Südtirol GmbH.

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

Deferred tax assets and liabilities are offset, if 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 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	2023	2022
Losses carried forward (total)		
Losses carried forward expire within		
1 year	31,547	41,698
2 to 5 years	73,742	107,943
over 5 years	32,977	11,993
carried forward indefinitely	186,821	119,327
	325,087	**280,961**
Losses carried forward (not usable)		
Losses carried forward expire within		
1 year	-	469
2 to 5 years	11,829	26,081
over 5 years	27,266	11,299
carried forward indefinitely	186,821	119,327
	225,916	**157,176**
Expected use of usable tax losses carried forward		
1 year	31,547	41,229
2 to 5 years	61,913	81,862
over 5 years	5,711	694
	99,171	**123,785**

As of 31 December 2023, trade tax losses carried forward amount to EUR 123,588k (previous year: EUR 123,920k), on which no deferred tax assets were recognised in the amount of EUR 41,425k (previous year: EUR 18,563k).

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 2023	**282,570**	33,226	279,612	3,480	**316,318**
Additions	**-**	6,194	4,603	1,084	**11,881**
Disposals	**-**	-	-9,729	-802	**-10,531**
Reclassifications	**-**	-	1,683	-1,683	**-**
Currency translation differences	**-609**	-55	-337	-	**-392**
As of 31 December 2023	**281,961**	**39,365**	**275,832**	**2,079**	**317,276**
Accumulated depreciation, amortisation and impairment losses					
As of 1 January 2023	**-**	17,903	222,678	-	**240,581**
Depreciation, amortisation and impairment 2023	**-**	1,884	24,145	-	**26,029**
Depreciation and amortisation	**-**	1,884	24,145	-	**26,029**
Impairment	**-**	-	-	-	**-**
Disposals	**-**	-	-9,472	-	**-9,472**
Reclassifications	-	-	-	-	-
Currency translation differences	-	-21	-277	-	-298
As of 31 December 2023	**-**	**19,766**	**237,074**	**-**	**256,840**
Carrying amounts					
As of 1 January 2023	282,570	15,323	56,934	3,480	75,737
As of 31 December 2023	281,961	19,599	38,758	2,079	60,436

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 2022	**281,408**	29,110	284,543	5,828	**319,481**
Changes in the scope of consolidation	**1,414**	-	6,115	17	**6,132**
Additions	**-**	4,031	5,824	1,755	**11,610**
Disposals	**-**	-	- 21,325	-	**- 21,325**
Reclassifications	**-**	-	4,233	- 4,120	**113**
Currency translation differences	**- 252**	85	222	-	**307**
As of 31 December 2022	**282,570**	**33,226**	**279,612**	**3,480**	**316,318**
Accumulated depreciation, amortisation and impairment losses					
As of 1 January 2022	**-**	15,992	205,841	-	**221,833**
Changes in the scope of consolidation	**-**	-	-	-	**-**
Depreciation, amortisation and impairment 2022	**-**	1,901	37,920	-	**39,821**
Depreciation and amortisation	**-**	1,901	37,920	-	**39,821**
Impairment	**-**	-	-	-	**-**
Disposals	**-**	-	- 21,183	-	**- 21,183**
Reclassifications	**-**	-	-	-	**-**
Currency translation differences	**-**	10	100	-	**110**
As of 31 December 2022	**-**	**17,903**	**222,678**	**-**	**240,581**
Carrying amounts					
As of 1 January 2022	281,408	13,118	78,702	5,828	97,648
As of 31 December 2022	282,570	15,323	56,934	3,480	75,737

In the previous year, the changes in the scope of consolidation for the acquired goodwill and other intangible assets reflect the acquisition of ecoCOAT GmbH, Allershausen, due to the initial consolidation and the acquisition of Autotest Südtirol GmbH, Franzensfeste / Italy.

The capitalised development costs for internally generated intangible assets relate mainly to the Med Tech segment. In addition to the capitalised development costs, research and development costs of EUR 18,751k (previous year: EUR 20,825k) were recognised as expenses.

No borrowing costs were capitalised in the financial year.

As in previous year, there are no purchase commitments for the acquisition of intangible assets as of 31 December 2023.

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

In the 2023 financial year, no government grants were deducted directly from the acquisition / production costs of intangible assets. In previous year, government grants amounting to EUR 1,088k were deducted directly from the acquisition / production costs of intangible assets in the Med Tech segment.

In the 2023 financial year, government grants for intangible assets in the amount of EUR 5,386k (previous year: EUR 6,030k) were recognised in the income statement.

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

in EUR '000	**31.12.2023**	**31.12.2022**
EDAG	166,023	166,052
Antriebssysteme Faurndau GmbH	3,701	3,701
Krebs & Aulich GmbH	5,687	5,687
ecoCOAT GmbH	1,414	1,414
Goodwill Engineering	**176,825**	**176,854**
Redpath	41,418	41,998
Goodwill Mining	**41,418**	**41,998**
Ziehm/OrthoScan	63,718	63,718
Goodwill Med Tech	**63,718**	**63,718**
Total Goodwill	**281,961**	**282,570**

The Group tests goodwill for impairment at least once a year. As of 31 December 2023, all goodwill items were subject to an impairment test conducted as described 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 three or five-year planning period. As in previous year, there is no impairment for the financial year 2023.

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

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

	2023	**2022**
Planning period	3 to 5 years	3 to 5 years
Growth rate	1.00%	1.00% to 1.20%
Expected market return	5.11% to 6.75%	5.75% to 7.25%
Return for risk-free investments	2.72% to 4,17%	2.00% to 4.15%
Post-tax discount rate	7.37% to 9.95%	6.33% to 10.57%

As in the previous year, a planning period of five years was used for the impairment test of goodwill in the Engineering segment for the EDAG Group. A planning period of five years is also used for ecoCOAT GmbH as a start-up. For all other impairment tests a three-year planning period is used.

The recoverable amounts are significantly higher than the carrying amounts in all cases as of the balance sheet date and detailed sensitivity analysis are therefore not presented.

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 and construction in progress	Total property, plant and equipment
Acquisition and production cost					
As of 1 January 2023	401,211	539,854	151,906	23,462	**1,116,433**
Additions	35,240	92,819	21,239	18,383	**167,681**
Disposals	-17,535	-64,462	-12,023	-1,451	**-95,471**
Reclassifications	2,482	13,857	578	-16,917	**-**
Currency translation differences	-773	-12,385	-420	-297	**-13,875**
As of 31 December 2023	**420,625**	**569,683**	**161,280**	**23,180**	**1,174,768**
Accumulated depreciation, amortisation and impairment					
As of 1 January 2023	110,498	353,336	98,270	-	**562,104**
Depreciation, amortisation and impairment 2023	31,529	62,819	17,729	-	**112,077**
Depreciation and amortisation	31,129	61,126	17,729	-	**109,984**
Impairment	400	1,693	-	-	**2,093**
Disposals	-9,669	-61,936	-11,611	-	**-83,216**
Reclassifications	299	-298	-1	-	**-**
Currency translation differences	-289	-9,116	-273	-	**-9,678**
As of 31 December 2023	**132,368**	**344,805**	**104,114**	**-**	**581,287**
Carrying amounts					
As of 1 January 2023	290,713	186,518	53,636	23,462	554,329
As of 31 December 2023	288,257	224,878	57,166	23,180	593,481

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 and construction in progress	Total property, plant and equipment
Acquisition and production cost					
As of 1 January 2022	332,377	522,555	138,486	6,602	**1,000,020**
Changes in the scope consolidation	4,930	3,793	661	175	**9,559**
Additions	64,403	59,861	19,867	35,555	**179,686**
Disposals	-7,425	-60,458	-7,858	-337	**-76,078**
Reclassifications	6,531	11,318	358	-18,320	**-113**
Currency translation differences	395	2,785	392	-213	**3,359**
As of 31 December 2022	**401,211**	**539,854**	**151,906**	**23,462**	**1,116,433**
Accumulated depreciation, amortisation and impairment					
As of 1 January 2022	88,346	339,769	88,640	-	**516,755**
Depreciation, amortisation and impairment 2022	29,050	64,756	16,849	-	**110,655**
Depreciation and amortisation	29,050	59,624	16,849	-	**105,523**
Impairment	-	5,132	-	-	**5,132**
Write-up	-800	-223	-	-	**-1,023**
Disposals	-6,254	-53,057	-7,492	-	**-66,803**
Reclassifications	-2	7	-5	-	**-**
Currency translation differences	158	2,084	278	-	**2,520**
As of 31 December 2022	**110,498**	**353,336**	**98,270**	**-**	**562,104**
Carrying amounts					
As of 1 January 2022	244,031	182,786	49,846	6,602	483,265
As of 31 December 2022	290,713	186,518	53,636	23,462	554,329

The decrease in ‘land, land rights and buildings, including buildings on third-party land’ from EUR 290,713k to EUR 288,257k is mainly due to the decline of right-of-use assets for leases in the Aviation, Engineering and Med Tech segments. In the Mining segment, on the other hand, there is an increase in this item.

The increase in the item ‘technical equipment and machinery’ from EUR 186,518k to EUR 224,878k results primarily from the Mining and Engineering segments. The increase in the Mining segment is due to the significant addition of rights-of-use assets from leases. Overall, there is an increase of EUR 38,360k.

The increase in ‘other equipment, operating and office equipment’ is due in particular to the Engineering segment.

While the Mining segment records a decline in the item ‘advance payments for and construction in progress’, advance payments for and construction in progress increased in the other segments, above all in the Engineering segment.

In the financial year 2023, impairment losses in the amount of EUR 2,093k were recognised on items of property, plant and equipment relating to land and buildings in the Engineering segment and technical equipment and machinery in the Mining segment. Impairment losses on land and buildings amounting to EUR 400k were recognised in the Engineering segment on right-of-use assets form leases for office buildings resulting from vacant space. In previous year, impairment losses in the amount of EUR 5,132k were recognised on technical equipment and machinery in the Mining segment.

In 2023 there are no additions or disposals due to changes in the scope of consolidation to property, plant and equipment. In the previous year, the line item ‘changes in the scope of consolidation’ included the additions from ecoCOAT GmbH, Allershausen, and Autotest Südtirol GmbH, Franzensfeste / Italy.

Property, plant and equipment in the amount of EUR 76,751k (previous year: EUR 54,757k) were used as collateral for liabilities. Property, plant and equipment is subject to restrictions on ownership in the amount of EUR 76,751k (previous year: EUR 55,067k) which mainly relate to the Mining segment.

Property, plant and equipment includes assets in the amount of EUR 344,077k (previous year: EUR 321,650k) that were acquired under leases.

Purchase commitments for property, plant and equipment amount to EUR 37,930k as of 31 December 2023 (previous year: EUR 60,752k).

In the financial year 2023, government grants amounting to EUR 52k (previous year: EUR 1,345k) were deducted directly from the acquisition and production costs of property, plant and equipment.

There are no investment properties neither in the financial year 2023 nor in 2022.

In the 2023 financial year, production costs of EUR 1,457k (previous year: EUR 2,256k) were capitalised in property, plant and equipment. As in the previous year, no borrowing costs were capitalised in the financial year 2023.

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 2023 and as of 31 December 2022:

in EUR '000	31.12.2023	31.12.2022
Land and buildings	248,397	256,417
Technical equipment and machinery	84,392	56,647
Other equipment, operating and office equipment	11,288	8,586
Total net carrying amount of right-of-use assets / of capitalised leased assets	**344,077**	**321,650**

The right-of-use assets for land and buildings primarily relate to the Engineering segment and, to a lesser extent, to the Med Tech and Aviation segments.

The leased technical equipment and machinery totalling EUR 84,392k (previous year: EUR 56,647k) are mainly capitalised at Redpath Group. As in the previous year, the lease terms vary between two and five years.

Additions to right-of-use assets amount to EUR 96,022k in the financial year (previous year: EUR 99,895k). Total cash outflow from leases amounts to EUR 108,572k in the financial year (previous year: EUR 91,030k).

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

in EUR '000	31.12.2023	31.12.2022
Land and buildings	28,318	26,377
Technical equipment and machinery	25,207	20,009
Other equipment, operating and office equipment	4,706	4,261
Depreciation charge for right-of-use assets	**58,231**	**50,647**
Interest expense from lease liabilities	9,539	5,653
Other lease expenses		
Lease expense relating to short-term leases	13,045	10,064
Lease expense relating to leases of low-value assets	5,515	5,248
Expense relating to variable lease payments (not included in the measurement of lease liabilities)	210	338
Income from subleasing right-of-use assets	- 2,047	- 2,024
Total Lease Expense	**84,493**	**69,926**

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

in EUR '000	31.12.2023	31.12.2022
Maturity		
Up to 1 year	63,126	52,043
1 to 5 years	137,607	118,362
Over 5 years	142,976	148,772
Total lease liabilities	**343,709**	**319,177**

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

in EUR '000	2023	2022
Other expenses from leases	18,924	17,208
Future lease payments (maturity)		
Up to 1 year	13,823	8,544
1 to 5 years	3,913	3,026
Over 5 years	530	704
Total	**18,266**	**12,274**

Other expenses from leases mainly relate to the incidental cost components of leasing contracts recognised in the income statement for which a right-of-use asset and a lease liability were recognised in accordance with IFRS 16 and for which the practical expedient under IFRS 16.15 was not applied, most of which are incurred in the Engineering segment. They also 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 in the financial year.

As at the reporting date, the Group had concluded three leases for the transfer of use of properties that had not yet commenced at the end of the year. Therefore, no corresponding lease liabilities and right-of-use assets were recognised as of the reporting date. The expected lease commencement dates and the total of future cash outflows to which the Group will be exposed in connection with these agreements are shown in the table below.

	Expected lease commencement dates	Future fixed cash outflows per contract year in EUR '000	Non-cancellable lease term
Real estate lease agreement 1	18 January 2024	419	5 years
Real estate lease agreement 2	1 July 2024	234	5 years
Real estate lease agreement 3	1 January 2025	272	1 year
Total		**925**	

20. The Group as lessor

The Group acts as lessor in the context of operating leases, most of which relate to the leasing of building premises. The contracts generally have a short term. Income from operating leases recognised in the statement of profit or loss amounts to EUR 2,243k in the financial year (previous year: EUR 2,868k). Income relating to variable lease payments that do not depend on an index or an interest rate amounts to EUR 0k in the financial year (previous year: EUR 583k).

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

in EUR '000	2023	2022
Operating leases under IFRS 16		
Up to 1 year	1,873	1,627
Up to 2 years	1,036	758
Up to 3 years	637	737
Up to 4 years	116	327
Up to 5 years	-	30
Over 5 years	-	-
Total lease payments	**3,662**	**3,479**

As of the reporting date, the Group is not a lessor of finance leases. In the course of the reporting year, the EDAG Group reassessed the classification of a sublease of buildings and property previously classified as a finance lease as part of a contract modification in accordance with IFRS 16.66. The sublease is now classified as an operating lease in accordance with its economic substance. The originally derecognised right-of-use asset from the main lease is recognised again as at the reporting date and depreciated over its useful life. The lease payments received are recognised in profit or loss in accordance with an operating lease. In contrast to the previous year, the sublease is therefore no longer recognised as a lease receivable. The future minimum lease payments from the lease are included in the table above.

21. Investments accounted for using the equity method

The Group has investments in joint ventures and associates. The carrying amount of investments accounted for using the equity method is as follows:

in EUR '000	31.12.2023	31.12.2022
Investments accounted for using the equity method		
Associates	33,839	50,247
Joint Ventures	47,869	36,463
	81,708	**86,710**

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

in EUR '000	2023	2022
Result from investments accounted for using the equity method		
Associates	-15,355	-60,239
Joint Ventures	11,051	1,933
	-4,304	**-58,306**

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 energy & 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 figures for the period from 1 January through 31 December 2023.

The respective 50.0 % interest in the joint venture Schacht Konrad 1, Mülheim an der Ruhr, and the joint venture Schacht Konrad 2, Mülheim an der Ruhr, are also accounted for using the equity method. Both joint ventures are strategic partnerships for the Group between Redpath Deilmann GmbH, Dortmund, and Thyssen Schachtbau GmbH. Schacht Konrad 1 and Schacht Konrad 2 offer access to the former iron ore mine in Salzgitter, which is currently being converted. 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 storage operations are also being built or extended.

The 50,0% interest in the joint venture AESA Redpath Mining S.A.C., Lima / Peru is also accounted for using the equity method. AESA Redpath Mining S.A.C. is a strategic partnership for the Group between Redpath Canada Limited and AESA and was established in 2021 for the Yanacocha project.

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

The 33.0 % interest in the joint venture Innui-Inuit Redpath Limited Partnership, Newfoundland / Canada, is also accounted for using the equity method. Innu-Inuit Redpath Limited Partnership is a strategic partnership for the Group between Redpath Canada Limited, Innu Development LP and NGC Nunatsiavut Inc. and was founded in 2015 for the project with the Voisey's Bay mine.

Summarised financial information for the most significant investments accounted for using the equity method as of 31 December 2023 are presented in the following tables.

The summarised balance sheet is as follows:

in EUR '000				
Company	**Murray & Roberts Holdings Limited**		**AESA Redpath Mining S.A.C.**	
Nature of the relationship	Associate		Joint Venture	
	31.12.2023	**31.12.2022**	**31.12.2023**	**31.12.2022**
Interest held in %	43.8	43.8	50.0	50.0
Current				
Cash and cash equivalents	56,173	37,682	1,310	7,068
Other current assets (excluding cash)	216,978	337,540	1,614	3,611
Total current assets	**273,151**	**375,222**	**2,924**	**10,679**
Financial liabilities (excluding trade and other payables, provisions and tax liabilities)	-49,539	-112,882	0	0
Other liabilities (including trade and other payables, provisions and tax liabilities)	-226,610	-213,773	-691	-10,105
Total current liabilities	**-276,149**	**-326,655**	**-691**	**-10,105**
Non-current				
Assets	**116,426**	**118,407**	**97**	**386**
Financial liabilities (excluding trade and other payables, provisions and tax liabilities)	-18,774	-33,428	-281	-238
Other liabilities (including trade and other payables, provisions and tax liabilities)	-13,368	-11,769	0	0
Total non-current liabilities	**-32,142**	**-45,197**	**-281**	**-238**
Net assets	**81,286**	**121,777**	**2,049**	**722**

in EUR '000				
Company	**Arbeitsgemeinschaft Schacht Konrad 1**		**Arbeitsgemeinschaft Schacht Konrad 2**	
Nature of the relationship	Joint Venture		Joint Venture	
	31.12.2023	**31.12.2022**	**31.12.2023**	**31.12.2022**
Interest held in %	50.0	50.0	50.0	50.0
Current				
Cash and cash equivalents	657	961	758	1,082
Other current assets (excluding cash)	18,091	17,925	44,376	24,034
Total current assets	**18,748**	**18,886**	**45,134**	**25,116**
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)	-6,950	-9,419	-10,537	-7,788
Total current liabilities	**-6,950**	**-9,419**	**-10,537**	**-7,788**
Non-current				
Assets	**160**	**213**	**1,307**	**924**
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	**11,958**	**9,680**	**35,904**	**18,252**

in EUR '000				
Company	**EDAG Werkzeug + Karosserie GmbH**		**Innu-Inuit Redpath Limited Partnership**	
Nature of the relationship	Associate		Joint Venture	
	31.12.2023	**31.12.2022**	**31.12.2023**	**31.12.2022**
Interest held in %	49.0	49.0	33.0	33.0
Current				
Cash and cash equivalents	15,033	3,549	7	7
Other current assets (excluding cash)	23,761	19,640	22,689	9,456
Total current assets	**38,794**	**23,189**	**22,696**	**9,463**
Financial liabilities (excluding trade and other payables, provisions and tax liabilities)	-909	-950	0	0
Other liabilities (including trade and other payables, provisions and tax liabilities)	-20,064	-5,777	-7,971	-10,419
Total current liabilities	**-20,973**	**-6,727**	**-7,971**	**-10,419**
Non-current				
Assets	**8,537**	**7,933**	**0**	**0**
Financial liabilities (excluding trade and other payables, provisions and tax liabilities)	-220	-430	0	0
Other liabilities (including trade and other payables, provisions and tax liabilities)	-1,228	-1,267	0	0
Total non-current liabilities	**-1,448**	**-1,697**	**0**	**0**
Net assets	**24,910**	**22,698**	**14,725**	**-956**

The summarised statement of comprehensive income is as follows:

in EUR '000				
Company	**Murray & Roberts Holdings Limited**		**AESA Redpath Mining S.A.C.**	
Nature of the relationship	Associate		Joint Venture	
	2023	**2022**	**2023**	**2022**
Interest held in %	43.8	43.8	50.0	50.0
Revenue	657,777	608,301	14,010	8,016
Depreciation and amortisation	-17,990	-22,954	0	0
Interest income	1,253	465	0	0
Interest expense	-11,676	-14,586	0	-22
Profit (+) or loss (-) from continuing operations	**-5,162**	**-5,753**	**1,772**	**807**
Income tax expense (-) / income (+)	-6,114	-6,218	-571	-205
Profit (+) or loss (-) after tax from continuing operations	**-11,276**	**-11,971**	**1,201**	**602**
Profit (+) or loss (-) after tax from discontinuing operations	-25,808	-130,690	0	0
Other comprehensive income	10,023	-54,566	0	0
Total comprehensive income	**-27,061**	**-197,227**	**1,201**	**602**
Dividends received	0	0	0	36

in EUR '000				
Company	**Arbeitsgemeinschaft Schacht Konrad 1**		**Arbeitsgemeinschaft Schacht Konrad 2**	
Nature of the relationship	Joint Venture		Joint Venture	
	2023	**2022**	**2023**	**2022**
Interest held in %	50.0	50.0	50.0	50.0
Revenue	11,911	10,683	42,490	25,425
Depreciation and amortisation	-104	0	-368	-13,633
Interest income	0	0	0	0
Interest expense	0	0	0	0
Profit (+) or loss (-) from continuing operations	**2,330**	**2,560**	**17,773**	**3,073**
Income tax expense (-) / income (+)	0	0	0	0
Profit (+) or loss (-) after tax from continuing operations	**2,330**	**2,560**	**17,773**	**3,073**
Profit (+) or loss (-) after tax from discontinuing operations	0	0	0	0
Other comprehensive income	0	0	0	0
Total comprehensive income	**2,330**	**2,560**	**17,773**	**3,073**
Dividends received	0	0	0	0

in EUR '000				
Company	**EDAG Werkzeug + Karosserie GmbH**		**Innu-Inuit Redpath Limited Partnership**	
Nature of the relationship	Associate		Joint Venture	
	2023	**2022**	**2023**	**2022**
Interest held in %	49.0	49.0	33.0	33.0
Revenue	52,138	38,467	53,817	35,483
Depreciation and amortisation	-1,557	-2,064	0	0
Interest income	418	0	0	0
Interest expense	-75	-53	0	-3
Profit (+) or loss (-) from continuing operations	**3,569**	**2,221**	**8,465**	**8,278**
Income tax expense (-) / income (+)	-1,131	-709	0	0
Profit (+) or loss (-) after tax from continuing operations	**2,438**	**1,512**	**8,465**	**8,278**
Profit (+) or loss (-) after tax from discontinuing operations	0	0	0	0
Other comprehensive income	97	231	0	0
Total comprehensive income	**2,535**	**1,743**	**8,465**	**8,278**
Dividends received	324	992	0	0

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

The information presented above reflects the amounts presented in the financial statements of the investments accounted for using the equity method (and not ATON 2 GmbH's share).

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**		**AESA Redpath Mining S.A.C.**		**Arbeitsgemeinschaft Schacht Konrad 1**		**Arbeitsgemeinschaft Schacht Konrad 2**	
	2023	**2022**	**2023**	**2022**	**2023**	**2022**	**2023**	**2022**
Net assets as of 1 January	158,754	220,272	721	112	9,680	7,086	18,252	15,117
Additions	0	0	0	0	0	0	0	0
Profit (+) / loss (-) for the period	-37,083	-142,661	1,201	602	2,330	2,560	17,773	3,073
Other comprehensive income	10,023	-54,566	0	0	0	0	0	0
Increase in capital	0	0	0	0	0	0	0	0
Adjustments / Disposals	0	0	0	0	0	0	0	0
Dividends received	0	0	0	-55	0	0	0	0
Currency translation differences	-86,723	135,709	129	62	-51	34	-121	62
Net assets as of 31 December	**44,971**	**158,754**	**2,051**	**721**	**11,959**	**9,680**	**35,904**	**18,252**
Interest held in %	43.8	43.8	50.0	50.0	50.0	50.0	50.0	50.0
Interest in investments accounted for using the equity method	19,702	69,549	1,025	361	5,979	4,840	17,952	9,126
Allocated hidden reserves / burden as a result of the PPA	0	0	0	0	0	0	0	0
Impairment	-5,433	-37,789	0	0	0	0	0	0
Goodwill	0	0	0	0	0	0	0	0
Carrying amount	**14,269**	**31,760**	**1,025**	**361**	**5,979**	**4,840**	**17,952**	**9,126**
Investments accounted for using the equity method	14,269	31,760	1,025	361	5,979	4,840	17,952	9,126
Receivables (+) / liabilities (-) to investments accounted for using the equity method	0	0	0	0	-7,197	-3,311	-10,694	-3,467

in EUR '000								
Company	**EDAG Werkzeug + Karosserie GmbH**		**Innu-Inuit Redpath Limited Partnership**		**Other investments accounted for using the equity method**		**Total**	
	2023	**2022**	**2023**	**2022**	**2023**	**2022**	**2023**	**2022**
Net assets as of 1 January	22,699	21,948	6,376	4,323	26,566	48,999	243,048	317,857
Additions	0	0	0	0	30	0	30	0
Profit (+) / loss (-) for the period	2,438	1,512	8,465	8,278	-1,082	-3,001	-5,958	-129,637
Other comprehensive income	97	231	0	0	0	0	10,120	-54,335
Increase in capital	0	0	0	0	4,650	4,750	4,650	4,750
Adjustments / Disposals	0	0	0	-5,974	-1,801	-25,593	-1,801	-31,567
Dividends received	-324	-992	0	0	-8,457	-91	-8,781	-1,138
Currency translation differences	0	0	-115	-251	-87	1,502	-86,968	137,118
Net assets as of 31 December	**24,910**	**22,699**	**14,726**	**6,376**	**19,819**	**26,566**	**154,340**	**243,048**
Interest held in %	33.0	33.0	33.0	33.0	33.0 resp. 96.1	33.0 resp. 91.2	33.0 resp. 96.1	33.0 resp. 91.2
Interest in investments accounted for using the equity method	12,206	11,123	4,859	2,104	18,054	20,032	79,777	117,135
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	-5,433	-37,789
Goodwill	7,364	7,364	0	0	0	0	7,364	7,364
Carrying amount	**19,570**	**18,487**	**4,859**	**2,104**	**18,054**	**20,032**	**81,708**	**86,710**
Investments accounted for using the equity method	19,570	18,487	4,859	2,104	18,054	20,032	81,708	86,710
Receivables (+) / liabilities (-) to investments accounted for using the equity method	-91	-104	11,043	-2,419	14,035	2,713	7,096	-6,588

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	31.12.2023			31.12.2022		
	Remaining maturity			Remaining maturity		
	> 1 year	< 1 year	Total	> 1 year	< 1 year	Total
Non-consolidated investments in affiliated companies	587	-	587	587	-	587
Loans	58,535	33,050	91,585	60,845	45,032	105,877
Other investments	6,428	-	6,428	1,289	-	1,289
Securities measured at fair value through profit and loss	29,477	72,480	101,957	28,441	77,480	105,921
Fair values of derivative financial instruments	235	44	279	418	180	598
Other financial assets	**95,262**	**105,574**	**200,836**	**91,580**	**122,692**	**214,272**

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

In the previous year, loans included loans to shareholders (before risk allowance) in the amount of EUR 11,000k.

Securities measured at fair value through profit and loss include mainly managed portfolios of equity positions and European corporate bonds and assets managed by the Royal Bank of Canada Investment Management (UK) Limited.

Cash flow hedges are generally used to hedge against foreign currency risks arising from future sales or procurement transactions. Options and future contracts regarding foreign currencies serve as hedging instruments. Changes in the fair value of the hedging instruments, to the extent that they affect their effective portion, are recognised in other comprehensive income until the underlying transaction is realised. The ineffective portion of changes in fair value is recognised in the income statement.

When the hedged item is realised, the fair value changes of the hedging instrument recognised in other comprehensive income are reclassified to the income statement. However, no hedging instruments were used for cash flow hedges either on the balance sheet date or on the previous year's balance sheet date.

The development of risk allowance for loans during financial year 2023 is as follows:

in EUR '000	Bucket 1	Bucket 2	Bucket 3	Total
As of 01 January 2023	**134**	**0**	**-19,918**	**-19,784**
Transfer to Bucket 1	0	0	0	**0**
Transfer to Bucket 2	0	0	0	**0**
Transfer to Bucket 3	0	0	0	**0**
Additions	-12	0	0	**-12**
Disposal due to settlement / Consumption	9	0	0	**9**
Reversal / Write-up	27	0	3,018	**3,045**
Currency translation differences and other changes	-282	0	0	**-282**
As of 31 December 2023	**-124**	**0**	**-16,900**	**-17,024**

The development of the gross book value of loans during financial year 2023 is as follows:

in EUR '000	Bucket 1	Bucket 2	Bucket 3	Total
As of 01 January 2023	**82,452**	**0**	**43,209**	**125,661**
Transfer to Bucket 1	0	0	0	**0**
Transfer to Bucket 2	0	0	0	**0**
Transfer to Bucket 3	0	0	0	**0**
Additions	12,714	0	0	**12,714**
Disposal due to settlement / Consumption	-29,965	0	0	**-29,965**
Currency translation differences and other changes	199	0	0	**199**
As of 31 December 2023	**65,400**	**0**	**43,209**	**108,609**

The net loans of EUR 91,585k (previous year: EUR 105,877k) 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. The reversal of the risk allowance in the amount of EUR 3,018k relates to an individual risk allowance for a subordinated loan to a related party recognised in the previous year. The net decrease in loans results from scheduled and unscheduled repayments of loans granted and the simultaneous issuing of new loans.

The development of risk allowance for loans as of 31 December 2022 is as follows:

in EUR '000	Bucket 1	Bucket 2	Bucket 3	Total
As of 01 January 2022	**-272**	**0**	**-36,205**	**-36,477**
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	-99	0	0	**-99**
Disposal due to settlement / Consumption	112	0	0	**112**
Reversal / Write-up	393	0	16,287	**16,680**
Currency translation differences and other changes	0	0	0	**0**
As of 31 December 2022	**134**	**0**	**-19,918**	**-19,784**

The development of the gross book value for loans as of 31 December 2022 is as follows:

in EUR '000	Bucket 1	Bucket 2	Bucket 3	Total
As of 01 January 2022	**124,397**	**0**	**43,209**	**167,606**
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	56,431	0	0	**56,431**
Disposal due to settlement / Consumption	-98,376	0	0	**-98,376**
Currency translation differences and other changes	0	0	0	**0**
As of 31 December 2022	**82,452**	**0**	**43,209**	**125,661**

23. Trade and other receivables

in EUR '000	31.12.2023		31.12.2022	
	current	non-current	current	non-current
Trade receivables	408,568	44	345,489	59
Other receivables (financial instruments)	9,483	3,635	12,518	3,676
Other receivables (non-financial instruments)	35,533	2,165	34,090	2,538
Carrying amount (net)	**453,584**	**5,844**	**392,097**	**6,273**

Risk allowances for receivables from goods and services developed as follows during financial year 2023:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2023	**-4,988**	**-27,775**	**-32,763**
Transfer to Bucket 2	0	0	**0**
Transfer to Bucket 3	3,677	-3,677	**0**
Additions	-1,298	-1,520	**-2,818**
Disposal due to settlement / Consumption	0	26,793	**26,793**
Reversal / Write-up	699	555	**1,254**
Currency translation differences and other changes	-60	24	**-36**
As of 31 December 2023	**-1,970**	**-5,600**	**-7,570**

The gross book values of trade receivables developed as follows during financial year 2023:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2023	**349,161**	**29,150**	**378,311**
Transfer to Bucket 2	0	0	**0**
Transfer to Bucket 3	-3,677	3,677	**0**
Additions	1,215,030	1,477	**1,216,507**
Disposal due to settlement / Consumption	-1,147,279	-28,072	**-1,175,351**
Currency translation differences and other changes	-3,243	-42	**-3,285**
As of 31 December 2023	**409,992**	**6,190**	**416,182**

The decrease in risk allowances in bucket 3 is almost entirely attributable to the Engineering segment and results from the derecognition of bad debts of a major customer that were already individually impaired in previous years.

Beyond this, 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 2022:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2022	**-5,502**	**-27,525**	**-33,027**
Transfer to Bucket 2	0	0	**0**
Transfer to Bucket 3	3,650	-3,650	**0**
Additions	-3,305	-2,394	**-5,699**
Disposal due to settlement / Consumption	0	4,349	**4,349**
Reversal / Write-up	234	1,606	**1,840**
Change in the scope of consolidation	-244	-156	**-400**
Currency translation differences and other changes	179	-5	**174**
As of 31 December 2022	**-4,988**	**-27,775**	**-32,763**

The gross book values of trade receivables developed as follows during financial year 2022:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2022	**313,960**	**28,515**	**342,475**
Transfer to Bucket 2	0	0	**0**
Transfer to Bucket 3	-419	419	**0**
Additions	1,318,441	2,910	**1,321,351**
Disposal due to settlement / Consumption	-1,289,905	-2,888	**-1,292,793**
Change in the scope of consolidation	4,357	156	**4,513**
Currency translation differences and other changes	2,727	38	**2,765**
As of 31 December 2022	**349,161**	**29,150**	**378,311**

Other receivables break down as follows:

in EUR '000	31.12.2023	31.12.2022
Current		
financial instruments		
Creditors with debit balances	162	197
Other receivables	9,326	12,331
Allowances (Buckets 1-3)	- 5	- 10
	9,483	**12,518**
No financial instruments		
Value added tax receivables	10,493	9,646
Receivables from employees	1,066	1,207
Other tax receivables	652	595
Other receivables	24,612	23,988
Allowances	- 1,290	- 1,346
	35,533	**34,090**
	45,016	**46,608**
Non-current		
financial instruments		
Other receivables	**3,640**	**3,681**
Allowances (Buckets 1-3)	- 5	- 5
	3,635	**3,676**
No financial instruments		
Other receivables	2,165	2,538
Allowances	-	-
	2,165	**2,538**
	5,800	**6,214**
Other receivables	**50,816**	**52,822**

Risk allowances for other receivables (financial instruments) developed as follows during financial year 2023:

in EUR '000	**Bucket 1**	**Bucket 2**	**Bucket 3**	**Total**
As of 01 January 2023	**-16**	**0**	**1**	**-15**
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	-11	0	0	**-11**
Disposal due to settlement / Consumption	0	0	0	**0**
Reversal / Write-up	16	0	0	**16**
Currency translation differences and other changes	1	0	-1	**0**
As of 31 December 2023	**-10**	**0**	**0**	**-10**

The gross carrying amounts of other receivables (financial instruments) developed as follows during financial year 2023:

in EUR '000	**Bucket 1**	**Bucket 2**	**Bucket 3**	**Total**
As of 01 January 2023	**12,110**	**0**	**4,099**	**16,209**
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	25,330	0	1,335	**26,665**
Disposal due to settlement / Consumption	-29,367	0	-86	**-29,453**
Change in the scope of consolidation	-161	0	0	**-161**
Currency translation differences and other changes	-132	0	0	**-132**
As of 31 December 2023	**7,780**	**0**	**5,348**	**13,128**

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 2022:

in EUR '000	**Bucket 1**	**Bucket 2**	**Bucket 3**	**Total**
As of 01 January 2022	**-19**	**0**	**-3**	**-22**
Transfer to Bucket 1	-1	0	1	**0**
Transfer to Bucket 2	0	0	0	**0**
Transfer to Bucket 3	0	0	0	**0**
Additions	-13	0	0	**-13**
Disposal due to settlement / Consumption	0	0	0	**0**
Reversal / Write-up	19	0	0	**19**
Change in the scope of consolidation	0	0	0	**0**
Currency translation differences and other changes	-2	0	3	**1**
As of 31 December 2022	**-16**	**0**	**1**	**-15**

The gross carrying amounts of other receivables (financial instruments) developed as follows during financial year 2022:

in EUR '000	Bucket 1	Bucket 2	Bucket 3	Total
As of 01 January 2022	**13,022**	**0**	**2,828**	**15,850**
Transfer to Bucket 1	1	0	-1	**0**
Transfer to Bucket 2	0	0	0	**0**
Transfer to Bucket 3	0	0	0	**0**
Additions	22,520	0	1,897	**24,417**
Disposal due to settlement / Consumption	-23,422	0	-625	**-24,047**
Change in the scope of consolidation	45	0	0	**45**
Currency translation differences and other changes	-56	0	0	**-56**
As of 31 December 2022	**12,110**	**0**	**4,099**	**16,209**

24. Contract Assets and Liabilities

The contractual assets and liabilities are composed as follows:

in EUR '000	31.12.2023	31.12.2022
Contract assets	**87,192**	**75,317**
Engineering	85,334	73,161
Mining	1,484	1,995
Med Tech	374	161
Aviation	0	0
Contract liabilities	**59,759**	**88,739**
Engineering	47,513	76,530
Mining	1,166	1,338
Med Tech	11,080	10,871
Aviation	0	0

Risk allowances for contract assets developed as follows during financial year 2023:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2023	**-556**	**-42,735**	**-43,291**
Transfer to Bucket 2	0	0	**0**
Transfer to Bucket 3	0	0	**0**
Additions	-129	0	**-129**
Disposal due to settlement / Consumption	0	0	**0**
Reversal / Write-up	364	0	**364**
Currency translation differences and other changes	0	217	**217**
As of 31 December 2023	**-321**	**-42,518**	**-42,839**

The gross carrying amount of contract assets developed as follows during financial year 2023:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2023	**73,864**	**44,744**	**118,608**
Transfer to Bucket 2	0	0	**0**
Transfer to Bucket 3	0	0	**0**
Additions	85,413	0	**85,413**
Disposal due to settlement / Consumption	-71,769	**-1,993**	**-73,762**
Currency translation differences and other changes	0	-228	**-228**
As of 31 December 2023	**87,508**	**42,523**	**130,031**

There has been no significant change in the gross carrying amounts that has led to a change in risk allowances for contract assets.

Risk allowances for contract assets developed as follows during the financial year 2022:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2022	**-257**	**-42,597**	**-42,854**
Transfer to Bucket 2	0	0	**0**
Transfer to Bucket 3	0	0	**0**
Additions	-300	-4	**-304**
Disposal due to settlement / Consumption	0	0	**0**
Reversal / Write-up	0	0	**0**
Change in the scope of consolidation	0	0	**0**
Currency translation differences and other changes	1	-134	**-133**
As of 31 December 2022	**-556**	**-42,735**	**-43,291**

The gross carrying amount of contract assets developed as follows during financial year 2022:

in EUR '000	Bucket 2	Bucket 3	Total
As of 01 January 2022	**65,867**	**45,079**	**110,946**
Transfer to Bucket 2	0	0	**0**
Transfer to Bucket 3	0	0	**0**
Additions	73,421	1,896	**75,317**
Disposal due to settlement / Consumption	-66,811	**-2,351**	**-69,162**
Change in the scope of consolidation	1,313	0	**1,313**
Currency translation differences and other changes	74	120	**194**
As of 31 December 2022	**73,864**	**44,744**	**118,608**

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

in EUR '000	31.12.2023	31.12.2022
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, it is not possible to determine the scope of changes in the transaction price without adjusting the scope of performance obligations.

Contract assets exist in the Engineering, Mining and Med Tech segments 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. In this case, the Group receives advance payments from customers, which are netted with the contract assets or recognised 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	2023		2022	
	Contract Assets	Contract Liabilities	Contract Assets	Contract Liabilities
Contract asset / Contract liability at the beginning of the reporting period	**75,317**	**-88,739**	**68,092**	**-156,635**
Revenue recognised in the reporting period that was included in the contract liability balance at the beginning of period	0	91,507	0	165,521
Reclassification of contract assets at the beginning of period to accounts receivable (due to invoicing)	-118,221	0	-68,381	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	8,805	-62,982	-45,748	-97,503
Increase due to change in measure of progress (which have still not resulted in accounts receivable)	121,577	0	119,639	0
Net changes in allowances / impairment for contract assets	-276	0	270	0
Changes due to business combinations	0	0	1,313	0
Reclassifications between contract assets and contract liabilities since the net amount of contract asset and payments received is changing the sign (+/-)	0	0	0	0
Currency translation difference for contract assets / liabilities	-10	455	132	-122
other significant changes in contract balances	0	0	0	0
Contract asset / Contract liability at the end of the reporting period	**87,192**	**-59,759**	**75,317**	**-88,739**

The transaction price allocated to the outstanding performance obligations as of 31 December 2023 is as follows:

in EUR '000	up to 1 year	1 - 5 years	> 5 years	Total
	56,341	3,308	110	59,759

The transaction price allocated to the outstanding performance obligations as of 31 December 2022 was as follows:

in EUR '000	up to 1 year	1 - 5 years	> 5 years	Total
	85,459	3,177	103	88,739

As revenue for satisfied performance obligation is recognised in the Mining segment 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 the financial year 2023, as in previous year, 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 inventories amounting to EUR 140,476k (previous year: EUR 131,963k) breaks down as follows:

in EUR '000	31.12.2023	31.12.2022
Raw materials, consumables and supplies	40,319	39,169
Unfinished goods, work in progress	17,831	15,600
Finished goods	22,337	21,009
Merchandises	59,236	54,440
Advance payments	753	1,745
Inventories	**140,476**	**131,963**

Inventories are written down to the net realisable value if lower than the acquisition or production costs. The carrying amount of inventories measured at net realisable value amounts to EUR 4,528k (previous year: EUR 11,060k). Total write-downs amounted to EUR 12,008k (previous year: EUR 16,782k). As in the previous year, the write-downs were fully recognised in cost of materials.

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

26. Cash and cash equivalents

in EUR '000	31.12.2023	31.12.2022
Cash and bank balances	330,881	383,455
Other cash equivalents	10	10
Cash in transit	1	-8
Cash and cash equivalents	**330,892**	**383,457**

With regard to the development of cash and cash equivalents, please refer to the consolidated statement of cash flows. As of 31 December 2023, the Group cannot freely dispose of cash amounting to EUR 219k (previous year: EUR 174k).

27. Equity

Details of the development of equity between 1 January and 31 December 2023 and the previous period are presented in the Group's statement of changes in equity.

Subscribed capital

The subscribed capital of EUR 15,025k (previous year: EUR 165,025k) corresponds to the equity of the parent company. The capital decrease of EUR 150,000k resolved on 25 March 2022 was carried out on 25 April 2023 and distributed to the shareholders.

As of 31 December 2023, the share capital of EUR 15,025k is fully paid in.

Capital reserve

The capital reserve as at 31 December 2023 amounts to EUR 73,356k (previous year: EUR 73,356k).

Other reserves

Other reserves include 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, reserves from the transition to IFRS 9, IFRS 15 and IFRS 16 and total other comprehensive income.

Other comprehensive income contains the effects of currency translation differences, effects from remeasurements of defined benefit plans and the effective portions 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 2023 no distributions were made to the shareholders of ATON 2 GmbH. In the current financial year, EUR 3,483k were distributed to non-controlling interests at the level of subsidiaries (previous year: EUR 1,267k).

in EUR '000	**31.12.2023**	**31.12.2022**
Retained earnings including profit or loss		
Revenue reserves and profit (+) or loss (-) carried forward	1,034,215	1,069,122
Profit attributable to the owners	60,149	-37,132
Reserve from the transition to IFRS / from application of IFRS 9, 15 and 16	147	147
	1,094,511	**1,032,137**
Other comprehensive income		
Currency translation differences	-42,655	-42,673
Remeasurements of defined benefit plans	1,618	2,955
	-41,037	**-39,718**
Other reserves	**1,053,474**	**992,419**

Non-controlling interests

Non-controlling interests are attributable to the following companies:

in EUR '000	**31.12.2023**	**31.12.2022**
EDAG subgroup	27,118	26,033
Redpath subgroup	-20,454	-15,137
ecoCOAT GmbH	1,571	2,042
Total non-controlling interests	**8,235**	**12,938**

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

As in the previous year, the non-controlling interests in relation to a variety of companies in the Redpath subgroup are not material, meaning that no disclosures are made for subsidiaries with non-controlling interests regarding balance sheet, income statement and cash flow statement.

The non-controlling interests in ecoCOAT GmbH result from the fact that unchanged to previous year ATON GmbH only holds 51.0 % of the shares in ecoCOAT GmbH as at the balance sheet date. The remaining 49.0 % are held by non-controlling shareholders.

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

in EUR '000	**31.12.2023**	**31.12.2022**
Percentage of non-controlling interests	**25.3**	**25.3**
Non-current assets	344,093	350,353
Current assets	351,083	351,333
Non-current liabilities	-357,649	-258,392
Current liabilities	-231,813	-341,849
Net assets	**105,714**	**101,445**
Net assets corresponding to non-controlling interests	**26,788**	**25,706**
Revenue	844,593	794,854
Profit or loss for the period	19,571	11,627
Other comprehensive income, net of income taxes	-1,540	9,637
Total comprehensive income to non-controlling interest	**18,031**	**21,264**
Profit or loss for the period corresponding to non-controlling interests	4,959	2,946
Other comprehensive income (net of taxes) corresponding to non-controlling interests	-390	2,442
Cash flow from operating activities	40,742	33,999
Cash flow from investing activities	-29,781	-29,720
Cash flow from financing activities	-26,268	-33,028
Foreign exchange effects / IFRS reallocations	-115	346
Net increase of cash and cash equivalents	**-15,422**	**-28,403**

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

in EUR '000	2023	2022
As of 1 January	**12,938**	**7,589**
Changes in equity recognised directly in equity		
Dividend payments	- 3,483	- 1,267
Changes in the scope of consolidation	-	2,485
Change in non-controlling interest due to step acquisition or disposal of interests to non-controlling interests	- 2,223	5,450
Remeasurement of defined benefit plans	- 455	2,414
Currency translation differences from translation of financial statements of foreign subsidiaries	84	28
	- 6,077	**9,110**
Changes in equity recognised in profit or loss	1,374	- 3,761
As of 31 December	**8,235**	**12,938**

The dividend payments relate to the dividend of the EDAG Group attributable to non-controlling interests in the financial year 2023.

The change in non-controlling interests due to step acquisition or disposal of shares to other shareholders in 2023 results from several changes in the shareholdings of Redpath Mining (S.A.) (Pty.) Ltd., South Africa, which never led to a loss of control. On 15 March 2023, shares were transferred to a minority shareholder by way of a deed of donation. This resulted in the interest in Redpath Mining (S.A.) (Pty.) Ltd. falling from 67.1 % to 59.6 %. A further capital increase took place at Redpath Mining (S.A.) (Pty.) Ltd. on 18 August 2023. As the minority shareholders did not participate in this capital increase, the interest in Redpath Mining (S.A.) (Pty.) Ltd. increased from 59.6 % to 69.0 %. On 11 October 2023, shares were transferred to a minority shareholder through a further deed of donation, so that the interest fell again from 69.0 % to 63.0 %, resulting in a non-controlling interest of 37.0 % (previous year: 32.9 %). These changes in shareholdings also affected Redpath Zambia Limited, Zambia, in which Redpath Mining (S.A.) (Pty.) Ltd. holds a 99.0% interest. Overall, the equity measures described above reduced minority interests by EUR 2,223k.

In the previous year, the increase resulting from the change in non-controlling interest due to step acquisition or disposal of shares to other shareholders resulted from a capital increase at Redpath Mining (S.A.) (Pty.) Ltd., South Africa, in which only Redpath as the majority shareholder participated (resulting in an increase in the shareholding from 53.9 % to 67.1 %). This reduced the non-controlling interest in Redpath Mining (S.A.) (Pty.) Ltd. from 46.1 % to 32.9 %. This capital increase also affected Redpath Zambia Limited, Zambia, in which Redpath Mining (S.A.) (Pty.) Ltd. holds a 99.0 % interest. Overall, this transaction and the decrease in minority interests led to a nominal increase of this non-controlling interest of EUR 5,450k, as the underlying net assets of the subsidiaries were negative.

In the previous year, the changes in equity due to changes in the scope of consolidation relate to the effect of the first-time consolidation of ecoCOAT GmbH, in which ATON GmbH holds 51.0 % and 49.0 % is attributable to other shareholders.

The change in equity from the remeasurement of defined benefit plans recognised directly in equity is due to the increase in the interest rate used to discount pension obligations. The change results exclusively from the EDAG Group.

The positive change in equity recognised in profit or loss for non-controlling interest in 2023 is attributable the EDAG Group in the amount of EUR 4,959k, partly offset by the Redpath Group in the amount of EUR -3,114k and ecoCOAT GmbH in the amount of EUR -471k.

28. Provisions for pensions

The Group has company pension schemes in the form of defined contribution plans and defined benefit plans.

Defined contribution exist in the form of retirement, disability and survivor's benefits. The employer contributions paid to the statutory pension insurance scheme in Germany should be treated as such defined contribution plans. Payments to defined contribution plans in the Group predominantly refer to contributions to the statutory pension insurance in Germany. Apart from the payment of contributions, the Group has no further payment obligations. In the reporting period, current contributions of EUR 61,982k (previous year: EUR 60,026k) were paid. Other long-term employee benefits according to IAS 19.153 amount to EUR 771k in 2023 (previous year: EUR 722k).

The defined benefit plan involves both direct pension commitments and indirect pension commitments made through VKE Versorgungskasse EDAG-Firmengruppe e.V. (VKE) for companies in the EDAG Group. The direct pension commitments guarantee 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 support 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 companies:

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

The exclusive and unalterable purpose of VKE is to manage the support fund which grants to beneficiaries voluntary, one-time, repeated or recurring benefits according to the benefit plan of VKE when they need support, become disabled or incapable to work and during 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. Members of the funding companies are also persons with whom the funding companies are, or have been, in an employment-type relationship. For employees recruited on or after 1 June 2006, there are no pension commitments.

The employees entitled to benefits receive retirement 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 also defined benefit commitments to a lesser extent at ATON Med Tech GmbH, Munich. Beneficiaries are employees who are not insured under the miners' pension insurance scheme and employees covered by collective bargaining agreements who joined the company until 30 June 1995.

Pension commitments in Germany are governed by the provisions of the German Company Pensions Act. Due to the legally prescribed pension adjustment obligation, pension commitments are subject to inflation risk. Furthermore, there is the risk that, due to changes in life expectancy, invalidity probabilities and mortality probabilities, the actual payment obligations may be different from what was expected at the time of the commitment.

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

In Italy, benefits are paid upon termination of the employment (Trattamento di Fine Rapporto [TFR]). Every employee is entitled to benefits in such cases. 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) to the Italian National Social Security Institute or to an external pensions fund during the year. 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 using an index prescribed by law (1.5 % plus 75 % of the increase in the consumer price index for families of workers and employees based on the last 12 months).

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.

Employees in Mexico also have a settlement claim. A payment in the amount of 12 days per service year is granted. In addition, in the event of unfair dismissal of employees who have reached retirement age, compensation must be paid for the service years worked. The compensation amounts to three months' salaries.

In addition, in Indonesia there are other post-employment benefit plans in accordance with Indonesian law that apply to all employed Indonesian nationals. The obligation is to pay a severance pay upon termination of employment. The benefit amount varies for each individual employee depending on 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 future estimated salary and pension trends.

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

in EUR '000	**2023**	**2022**
Present value of funded obligations	40,757	37,744
Fair value of plan assets	- 18,319	- 19,031
Deficit of funded plans	**22,438**	**18,713**
Present value of unfunded obligations	16,391	16,098
Total deficit of defined benefit pension plans	**38,829**	**34,811**
Provisions for pensions as of 31 December	**38,829**	**34,811**

The provisions for pensions developed as follows:

in EUR '000	**2023**	**2022**
Provisions for pensions as of 1 January	34,811	50,821
Current service cost	1,526	2,060
Past service cost	-202	-2,653
Net interest cost (+) / income (-)	1,282	547
Remeasurements	2,622	-14,769
from changes in demographic assumptions	49	920
from changes in financial assumptions	2,619	-15,855
from experience gains (-) / losses (+)	-46	166
Gains (-) / losses (+) from settlements	0	0
Currency translation differences	26	-134
Employer contributions	-195	-137
Benefit payments	-1,051	-934
thereof from settlements	0	0
Administration cost	10	10
Provisions for pensions as of 31 December	**38,829**	**34,811**

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

in EUR '000	2023	2022
Present value of the defined benefit obligation as of 1 January	53,842	71,381
Current service cost	1,526	2,060
Past service cost	-202	-2,653
Interest cost	2,000	750
Remeasurements of defined benefit plans		
from changes in demographic assumptions	49	920
from changes in financial assumptions	2,437	-15,820
from experience gains (-) / losses (+)	-46	166
Currency translation differences	56	-44
Contributions by plan participants	206	318
Benefit payments	-2,730	-3,246
thereof from settlements	0	0
Administration cost	10	10
Present value of the defined benefit obligation as of 31 December	**57,148**	**53,842**

The fair value of plan assets developed as follows:

in EUR '000	2023	2022
Fair value of plan assets as of 1 January	19,031	20,560
Interest income	718	203
Gains (+) / losses (-) from settlements	0	0
Return on (-) / loss from (-) plan assets excluding amounts included in interest income	-182	35
Currency translation differences	30	90
Employer contributions	195	137
Contributions by plan participants	206	318
Benefit payments	-1,679	-2,312
thereof payments from settlements	0	0
Fair value of plan assets as of 31 December	**18,319**	**19,031**

The fair value of the plan assets is allocated to the individual asset categories as follows:

in EUR '000	2023	in %	2022	in %
Debt instruments (Germany)	16,681	91%	17,551	92%
thereof investments in employer company or related parties	16,681		17,551	
Collective foundation (Switzerland)	1,638	9%	1,480	8%
thereof without a quoted market price in an active market	1,638		1,480	
Plan assets as of 31 December	**18,319**	**100%**	**19,031**	**100%**

Neither as of 31 December 2023 nor as of 31 December 2022, the asset ceiling for plan assets to be recorded does apply.

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

	2023	2022
Average discount rate		
Germany	3.49%	4.06%
India	7.40%	7.47%
Indonesia	6.60%	7.05%
Italy	3.70%	3.98%
Mexico	10.20%	8.40%
Switzerland	1.95%	2.25%
Biometric accounting bases		
Germany	Actuarial tables 2018 G	Actuarial tables 2018 G
India	IALM 2012 - 14	IALM 2012 - 14
Indonesia	TMI 4 (2019)	TMI 4 (2019)
Italy	RG 48	RG 48
Mexico	ENOE 2010 - INEGI	ENOE 2010 - INEGI
Switzerland	BVG 2020 GT	BVG 2015 GT

The following sensitivity analyses shows what the present value of the defined benefit obligation would be if the main actuarial assumptions were increased or decreased:

in EUR'000		**2023**	**in %**	**2022**	**in %**
Average discount rate	+ 0,50 %	54,728	-4.23	51,781	-3.83
	- 0,50 %	59,761	4.57	56,637	5.19
Average life expectancy	+ 1 year	57,185	0.06	54,363	0.97
	- 1 year	57,160	0.02	53,877	0.06

The sensitivities were determined analogously to the scope of obligations. One assumption was changed while holding all other assumptions and the valuation method unchanged. 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 on salary and pension trends do not have a material impact on the present value of the defined benefit obligation. Hence, no sensitivities were stated for these assumptions.

For the financial year 2024, the Group expects contributions to defined benefit pension plans in the total amount of EUR 3,920k (previous year: EUR 3,571k).

The weighted average duration of the defined benefit obligation of ATON's defined benefit plans is 10 years as of 31 December 2023 (previous year: 10 years).

29. Provisions for income taxes and other provisions

Provisions for income taxes and other provisions developed as follows:

in EUR '000	Income taxes	Personnel	Warran-ties	Rework	Onerous contracts	Litigation risks	Other	Total other provisions
As of 1 January 2023	**10,840**	**12,581**	**4,460**	**713**	**20,307**	**438**	**5,287**	**43,786**
thereof: current	**10,703**	8,090	3,819	713	20,256	438	3,328	**36,644**
Changes in the scope of consolidation	**-**	-	-	-	-	-	-	**-**
Currency translation differences	**4**	54	-16	-32	19	6	-41	**-10**
Additions	**2,419**	4,140	1,267	668	120	263	2,800	**9,258**
Consumption	**-7,223**	-2,602	-454	-475	-77	-222	-904	**-4,734**
Reversal	**-5**	-772	-2,054	-72	-	-57	-903	**-3,858**
Interest effect	**-**	66	-1	-	-	-	-	**65**
Other changes	**-641**	-	-	-	-	-	641	**641**
As of 31 December 2023	**5,394**	**13,467**	**3,202**	**802**	**20,369**	**428**	**6,880**	**45,148**
thereof: current	**5,235**	8,652	2,434	802	20,369	428	4,959	**37,644**

in EUR '000	Income taxes	Personnel	Warran-ties	Rework	Onerous contracts	Litigation risks	Other	Total other provisions
As of 1 January 2022	**4,593**	**17,830**	**4,023**	**222**	**7,366**	**839**	**8,781**	**39,061**
thereof: current	**4,447**	13,947	3,274	222	7,366	839	6,750	**32,398**
Changes in the scope of consolidation	**-**	811	-	-	349	-	1	**1,161**
Currency translation differences	**15**	52	26	-20	89	14	-37	**124**
Additions	**8,591**	3,358	2,265	1,088	14,235	2	440	**21,388**
Consumption	**-2,297**	-7,410	-713	-575	-272	-412	-1,189	**-10,571**
Reversal	**-62**	-2,078	-1,141	-2	-1,460	-5	-2,707	**-7,393**
Interest effect	**-**	18	-	-	-	-	-2	**16**
As of 31 December 2022	**10,840**	**12,581**	**4,460**	**713**	**20,307**	**438**	**5,287**	**43,786**
thereof: current	**10,703**	8,090	3,819	713	20,256	438	3,328	**36,644**

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 include, in particular, provisions for severance payments of EUR 4,009k (previous year: EUR 3,549k) and provisions for service anniversaries of EUR 2,557k (previous year: EUR 2,504k).

Provisions for warranties cover statutory and contractual warranty obligations as well as goodwill payments. 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 construction contracts or sales and rental contracts.

Provisions for litigation risks result from currently pending or future proceedings whose outcome cannot be predicted with certainty. The measurement is made on the basis of individual assessments with the most probable outcome in each case.

Provisions for archiving costs as part of other provisions amount to EUR 216k in the financial year (previous year: EUR 221k).

30. Financial liabilities

Financial liabilities break down as follows:

	31.12.2023				31.12.2022			
	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
Liabilities to banks	220,487	76,517	136,445	7,525	173,922	85,348	85,749	2,825
thereof from current accounts	6,803	6,803	0	0	2,999	2,999	0	0
thereof from loans	213,684	69,714	136,445	7,525	170,923	82,349	85,749	2,825
Loan liabilities	57,561	57,537	24	0	20,848	20,814	34	0
thereof to third parties	32	8	24	0	43	9	34	0
thereof to shareholders	40,000	40,000	0	0	0	0	0	0
thereof to related parties	16,681	16,681	0	0	17,551	17,551	0	0
thereof to investments accounted for using the equity method	848	848	0	0	3,254	3,254	0	0
Lease liabilities	343,709	63,126	137,607	142,976	319,177	52,043	118,362	148,772
Liabilities from derivative financial instruments	170	170	0	0	0	0	0	0
Total	**621,927**	**197,350**	**274,076**	**150,501**	**513,947**	**158,205**	**204,145**	**151,597**

With regard to lease liabilities, please refer to note **19. The Group as lessee**.

The table below shows the future undiscounted cash flows of financial liabilities as of 31 December 2023 that have an impact on the future liquidity status of the ATON Group:

		Cash flow in 2024			Cash flow in 2025-2027			Cash flow in 2028 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	220,487	280	115	76,517	4,057	2,399	40,039	7,430	4,152	103,931	-
Lease liabilities	343,709	11,211	-	65,437	20,651	-	158,901	25,055	-	119,371	-
Loan liabilities to shareholders, related parties and associates	56,681	400	-	40,000	-	-	-	-	-	-	16,681
Loan liabilities to investments accounted for using the equity method	848	-	-	848	-	-	-	-	-	-	-
Loan liabilities to third parties	32	-	-	8	1	-	24	-	-	-	-
Liabilities from derivative financial instruments	170	-	-	170	-	-	-	-	-	-	-
Trade payables	127,648	-	-	127,644	-	-	4	-	-	-	-
Contract Liabilities	59,759	-	-	56,341	-	-	3,308	-	-	110	-
Other liabilities (financial instruments)	26,721	-	-	6,551	-	-	20,170	-	-	-	-
Total	**836,055**	**11,891**	**115**	**373,516**	**24,709**	**2,399**	**222,446**	**32,485**	**4,152**	**223,412**	**16,681**

The following table shows the future undiscounted cash flows of financial liabilities as of 31 December 2022:

		Cash flow in 2023			Cash flow in 2024-2026			Cash flow in 2027 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	173,922	1,264	867	85,348	550	523	3,264	682	447	43,631	41,679
Lease liabilities	319,177	8,417	-	55,994	25,110	-	134,470	27,279	-	128,713	-
Loan liabilities to shareholders, related parties and associates	17,551	-	-	-	-	-	-	-	-	-	17,551
Loan liabilities to investments accounted for using the equity method	3,254	-	-	3,254	-	-	-	-	-	-	-
Loan liabilities to third parties	43	1	-	23	1	-	20	-	-	-	-
Liabilities from derivative financial instruments	-	-	-	-	-	-	-	-	-	-	-
Trade payables	104,623	-	-	104,623	-	-	-	-	-	-	-
Contract Liabilities	88,740	-	-	85,460	-	-	3,177	-	-	103	-
Other liabilities (financial instruments)	22,682	-	-	8,499	-	-	14,183	-	-	-	-
Total	**729,992**	**9,682**	**867**	**343,201**	**25,661**	**523**	**155,114**	**27,961**	**447**	**172,447**	**59,230**

31. Trade and other payables

in EUR '000	31.12.2023 Total	Remaining maturities < 1 year	> 1 year < 5 years	> 5 years	31.12.2022 Total	Remaining maturities < 1 year	> 1 year < 5 years	> 5 years
Trade payables								
to third parties	123,513	123,509	4	-	103,643	103,643	-	-
to related parties	2,178	2,178	-	-	205	205	-	-
to affiliated companies	1,957	1,957	-	-	775	775	-	-
	127,648	**127,644**	**4**	**-**	**104,623**	**104,623**	**-**	**-**
Other liabilities								
Other liabilities (financial instruments)								
to associates	20,170	-	20,170	-	12,360	-	12,360	-
to related parties	508	508	-	-	3	3	-	-
from business combinations	2,393	2,393	-	-	6,367	4,544	1,823	-
from other liabilities (financial instruments)	3,650	3,650	-	-	3,952	3,952	-	-
	26,721	**6,551**	**20,170**	**-**	**22,682**	**8,499**	**14,183**	**-**
Other liabilities (no financial instruments)								
payments received on account of orders	17,813	15,658	2,155	-	15,848	13,291	2,557	-
to employees	103,180	103,180	-	-	81,218	81,216	2	-
from social security contributions	5,016	5,016	-	-	4,086	4,086	-	-
from value added tax and other taxes	36,853	36,853	-	-	35,455	35,455	-	-
from deferred income	1,611	1,433	178	-	1,323	1,118	205	-
from other liabilities (no financial instruments)	722	722	-	-	1,019	1,019	-	-
	165,195	**162,862**	**2,333**	**-**	**138,949**	**136,185**	**2,764**	**-**
Total	**319,564**	**297,057**	**22,507**	**-**	**266,254**	**249,307**	**16,947**	**-**

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 still to be paid to social security institutions.

Aside from this, other liabilities include a large number of individually immaterial items.

32. Notes to the consolidated statement of cash flows

The statement of cash flows shows how 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. Only the effects of changes in the scope of consolidation are disclosed separately 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 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 95,407k; previous year’s period: EUR -43,629k) adjusted by the net amount of interest expense, interest income and dividend income (EUR 12,106k; previous year: EUR 6,621k).

In the reporting period, the cash flow from operating activities amounts to EUR 133,143k (previous year: EUR 94,408k), and is therefore EUR 38,735k higher than in the same period of the previous year. The gross cash flow of EUR 237,953k is EUR 26,130k above the previous year, although the change in working capital, with a net increase of EUR 53,210k in the reporting period (previous year: EUR 90,902k), had a negative effect on the development of cash flow from operating activities. At EUR 42,950k, income taxes paid were also EUR 24,509k higher than in the previous year’s period. In addition, EUR 9,322k more interest was paid in the reporting period than in the same period of the previous year. On the other hand, the EUR 3,681k higher dividends received in the reporting period had a positive effect on cash flow from operating activities.

Cash flow from investing activities

The cash outflow from investing activities amounts to EUR 63,818k (previous year: EUR 33,016k). Net investments in property plant and equipment and intangible assets led to a cash outflow of EUR 74,760k (previous year: EUR 74,521k) in the reporting period and are thus at the previous year’s level. In addition, payments made for conditional purchase price payments in connection with the acquisition of consolidated subsidiaries resulted in a cash outflow of EUR 3,455k in the reporting period (previous year: EUR 3,892k). In contrast, net investments in financial assets and associated companies led to a cash inflow of EUR 14,397k (previous year: EUR 45,397k), which is EUR 31,000k below the previous year’s level.

Cash flow from financing activities

In the reporting period, the cash outflow from financing activities amounts to EUR 119,627k (previous year: EUR 207,566k). The cash flow from financing activities is primarily based on net payments to shareholders of EUR 102,483k (previous year: EUR 118,827k) as well as the net repayment of bank loans and lease liabilities of EUR 17,144k (previous year: EUR 88,739k).

Reconciliation of the change in financial liabilities to the consolidated statement of cash flows

The following table shows the change in financial liabilities presented in the cash flow from financing activities in the financial year 2023:

in EUR '000	Balance as of 1 January 2023	Cash flows	non-cash changes				Balance as of 31 December 2023
			Additions and disposals (non-cash)	Currency translation differences	Changes in fair value	Reclassifica-tions / restatements	
Current liabilities to banks, from bonds and other current financial liabilities	106,162	- 38,275	48	- 255	7,481	59,063	**134,224**
Non-current liabilities to banks, from bonds and other non-current financial liabilities	88,608	112,124	-	- 527	2,852	-59,063	**143,994**
Current lease liabilities	52,043	- 70,855	47,859	- 836	9,517	25,398	**63,126**
Non-current lease liabilities	267,134	- 23	40,449	- 1,614	35	-25,398	**280,583**
Total	**513,947**	**2,971**	**88,356**	**- 3,232**	**19,885**	**-**	**621,927**

The cash flow from financing activities also includes the capital reduction of EUR 150,000k and the dividend payment to non-controlling interests of EUR 3,483k under payments to shareholders. These values must be taken into account when reconciling the change in financial liabilities to cash flow from financing activities.

Non-cash additions and disposals for liabilities to banks, from bonds and other financial liabilities mainly include non-cash changes in lease liabilities.

It should be noted that interest payments for financial liabilities are presented under interest paid in the cash flow from operating activities. In addition to the above table, these payments must also be taken into account in the reconciliation of changes in financial liabilities to cash flow from financing activities.

The following table shows the change in financial liabilities presented in the cash flow from financing activities in the financial year 2022:

in EUR '000	Balance as of 1 January 2022	Cash flows	non-cash changes				Balance as of 31 December 2022
			Additions and disposals (non-cash)	Currency translation differences	Changes in fair value	Reclassifica-tions / restatements	
Current liabilities to banks, from bonds and other current financial liabilities	83,143	- 63,188	2,229	- 105	2,666	81,417	106,162
Non-current liabilities to banks, from bonds and other non-current financial liabilities	158,535	6,576	3,526	- 778	2,166	-81,417	88,608
Current lease liabilities	41,748	- 58,172	41,044	- 205	5,611	22,017	52,043
Non-current lease liabilities	218,088	-	70,871	150	42	-22,017	267,134
Total	**501,514**	**- 114,784**	**117,670**	**- 938**	**10,485**	**-**	**513,947**

The cash flow from financing activities also includes the capital reduction of EUR 100,000k and the dividend payment to non-controlling interests of EUR 1,267k. These values must be taken into account when reconciling the change in financial liabilities to cash flow from financing activities.

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

It should be noted that interest payments for financial liabilities are presented under interest paid in the cash flow from operating activities. In addition to the above table, these payments must also be taken into account in the reconciliation of changes in financial liabilities to cash flow from financing activities.

33. Contingent liabilities and other financial obligations

Contingent liabilities

No provisions are recognised for contingent liabilities because it is deemed unlikely that the risk would materialise as of the reporting date.

in EUR '000	31.12.2023	of which to affiliated companies	31.12.2022	of which to affiliated companies
Liabilities from guarantees, bill and cheque guarantees	-	-	-	-
Contingent liabilities from the granting of security for third-party liabilities	1,901	-	13,208	-
Other contingent liabilities	60,109	-	44,057	-
Contingent liabilities	**62,010**	**-**	**57,265**	**-**

As of 31 December 2023, there are no liabilities from guarantees, bill and cheque guarantees.

The contingent liabilities from the granting of security for third-party liabilities as of 31 December 2023 relate to a guarantee facility provided by ATON GmbH to a related party, which was used in the amount of EUR 1,901k as of the balance sheet date (previous year: EUR 13,208k). Due to the insolvency of a subsidiary of this related company, a utilisation in the amount of EUR 1,315k (previous year: EUR 6,296k) is expected. This risk of utilisation was taken into account when assessing the recoverability of the subordinated loans held to this related party and led to a pro rata reversal of the impairment of the loan as at the reporting date (see note **22. Other financial assets**, development of risk allowance).

Other contingent liabilities consist exclusively of contract fulfilment and performance guarantees in the Mining segment, which are issued to customers via banks.

Other financial obligations

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

in EUR '000	31.12.2023	31.12.2022
Obligations from non-cancellable leases	18,266	12,274
Purchase commitments and other purchase obligations	93,868	117,977
Miscellaneous other obligations	4,239	3,559
Other financial obligations	**116,373**	**133,810**

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

The increase in obligations from non-cancellable leases that are not recognised as a right-of-use assets and lease liabilities in accordance with IFRS 16 is attributable to the Aviation, Engineering and Mining segments.

The decline in obligations from purchase commitments and other purchase obligations is due from the Mining and Engineering segments.

The increase in miscellaneous other obligations results from the Aviation segment. In contrast, Engineering and Med Tech segments recorded a decline.

34. Financial instrument disclosures

Carrying amounts, valuations and fair values of financial instruments by measurement category

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, bank overdrafts and non-current loans.

In the case of cash equivalents and bank 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 close 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 rating standards. The fair value of financial liabilities largely corresponds to the carrying amount, as the agreed interest rate is regularly adjusted to the market level. For fixed-rate items, the carrying amount is at least very close to the fair value, which results by discounting with term-adequate interest rates, as the interest rate is generally in line with 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 at the reporting date. Recognised valuation models are used for the determination. 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 2023 according to IFRS 9:

in EUR '000	Carrying amount under IFRS 9						Fair Value
	Assets				Liabilities		
	Fair value through profit or loss	Amortised cost	Fair value through other comprehen-sive income	Fair Value through OCI Option	Fair value through profit or loss	Amortised cost	
Cash and cash equivalents		330,892					330,892
Financial assets at amortised cost							
Loans		91,585					91,585
Trade receivables		408,612					408,612
Other receivables (financial instruments)		13,118					13,118
Financial assets at fair value through profit and loss							
Securities	101,957						101,957
Futures	279						279
Non-consolidated investments in affiliated companies / Other investments	7,015						7,015
Financial liabilities at amortised cost							
Trade payables						127,648	127,648
Liabilities to banks						220,487	223,065
Other interest-bearing liabilities						57,561	57,561
Other liabilities (financial instruments)						26,721	26,721
Lease liabilities						343,709	343,709
Financial liabilities at fair value through profit and loss							
Foreign exchange futures					170		170
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 2022 according to IFRS 9:

in EUR '000	Carrying amount under IFRS 9						Fair Value
	Assets				Liabilities		
	Fair value through profit or loss	Amortised cost	Fair value through other comprehen-sive income	Fair Value through OCI Option	Fair value through profit or loss	Amortised cost	
Cash and cash equivalents		383,457					383,457
Financial assets at amortised cost							
Loans		105,877					105,877
Trade receivables		345,548					345,548
Other receivables (financial instruments)		16,194					16,194
Financial assets at fair value through profit and loss							
Securities	105,921						105,921
Futures	598						598
Non-consolidated investments in affiliated companies / Other investments	1,876						1,876
Financial liabilities at amortised cost							
Trade payables						104,623	104,623
Liabilities to banks						173,922	171,872
Other interest-bearing liabilities						20,848	20,848
Other liabilities (financial instruments)						22,682	22,682
Lease liabilities						319,177	319,177
Financial liabilities at fair value through profit and loss							
Foreign exchange futures					-		-
Currency options					-		-

If circumstances occur that require a different classification, the reclassification is made 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 2023:

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	279	0	279	0	279
Other financial liabilities					
Derivative financial liabilities	170	0	170	0	170

The following table shows the gross and net amounts of the other financial assets and other financial liabilities as of 31 December 2022:

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	598	0	598	0	598
Other financial liabilities					
Derivative financial liabilities	0	0	0	0	0

Determination of the fair value of financial instruments

In the tables below, the fair values of financial instruments are allocated to the levels in accordance with the requirements of IFRS 7. The fair value measurement of a financial instrument is allocated in its entirety to the level whose factor is material for determining the fair value. In level 1, the fair value of financial instruments is mainly determined by using quoted prices in active markets for identical financial assets or liabilities. The market is considered to be active if quoted prices are readily and regularly available from an exchange, a trader, broker, industry association, pricing service or a supervisory authority and those prices reflect current recurring market transactions conducted at arm’s length principle. Level 2 fair value is determined principally using valuation techniques based on observable market data for similar financial assets or liabilities. The fair value is thus determined on the basis of the results of a valuation method that relies as much as possible on market data and as little as possible on company-specific data. Fair value measurements of level 3 are mainly based on unobservable market data. In 2023 and 2022, 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 2023 or 2022.

The table below shows the classification of the assets and liabilities measured at fair value as of 31 December 2023:

in EUR '000	Level 1	Level 2	Level 3	Total
Assets				
Non-consolidated investments in affiliated companies		587		587
Other investments		6,428		6,428
Securities measured at fair value through profit and loss (FVTPL)	101,957			101,957
Foreign exchange futures		279		279
Liabilities				
Foreign exchange futures		170		170
Currency options		-		-

In the reporting period 2023, 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 whose fair value is measured 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 to 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 2022:

in EUR '000	Level 1	Level 2	Level 3	Total
Assets				
Non-consolidated investments in affiliated companies		587		587
Other investments		1,289		1,289
Securities measured at fair value through profit and loss (FVTPL)	105,921			105,921
Foreign exchange futures		598		598
Liabilities				
Foreign exchange futures		-		-
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 in accordance with IFRS 9 are reported separately in the income statement.

Net gains or losses from financial assets and liabilities at fair value through profit or loss include, in addition to the results from 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 cost mainly includes interest expenses from financial liabilities. It also includes interest expenses and interest income from the compounding and discounting of trade payables.

The net gains or losses by measurement category according to IFRS 9 are as follows in the financial year 2023:

in EUR '000	From interest and dividends	From subsequent measurement: Fair value	From subsequent measurement: Currency translation	From subsequent measurement: Allowances	From disposal	Net gain or loss 2023
Financial assets measured at amortised costs	5,062	-	- 2,570	1,719	-	4,211
Financial assets at fair value through profit and loss	3,150	11,734	36	-	1,802	16,722
Financial liabilities measured at amortised costs	- 7,824	-	- 2,835	-	-	- 10,659
Financial liabilities at fair value through profit and loss	- 293	- 410	29	-	-	- 674
Net gain / loss	**95**	**11,324**	**-5,340**	**1,719**	**1,802**	**9,600**

The net gains or losses by measurement category according to IFRS 9 were as follows in the financial year 2022:

in EUR '000	From interest and dividends	From subsequent measurement: Fair value	From subsequent measurement: Currency translation	From subsequent measurement: Allowances	From disposal	Net gain or loss 2022
Financial assets measured at amortised costs	4,875	-	2,237	13,106	-	20,218
Financial assets at fair value through profit and loss	2,730	- 21,556	257	358	547	- 17,664
Financial liabilities measured at amortised costs	- 6,377	-	- 814	-	-	- 7,191
Financial liabilities at fair value through profit and loss	- 8	418	785	-	-	1,195
Net gain / loss	**1,220**	**-21,138**	**2,465**	**13,464**	**547**	**-3,442**

Net interest income/expense

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

in EUR '000	2023	2022
Interest income	10,719	5,279
Interest expense	- 13,483	- 6,783
Net interest expense	**- 2,764**	**- 1,504**

35. Objectives and methods of financial risk management

Risk management principles

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

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

The financial policy is defined by the Group's management board on an annual basis. The implementation of the financial policy and the ongoing risk management are the responsibility of the subgroups and single entities. In order to monitor financial policy, the Group's management board is informed of the scope and amount of current risk exposure in regular quarterly meetings or in the event of significant changes. In addition, certain transactions whose nature and scope exceed the normal course of business are subject to the prior approval of the Group's management board.

Risks from exchange rate fluctuations are limited by predominantly local sourcing of materials for the manufacturing and assembly process 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 default risk. A creditworthiness and default risk exists if a business partner cannot meet its obligations in a transaction with non-derivative or derivative financial instruments and asset losses are caused as a result. As part of their operations, the Group companies only enter into transactions with third parties who are rated as creditworthy. Creditworthiness checks are performed for new customers. In the case of existing customer relationships, regular analysis of payment behaviour is carried out. In addition, an analysis and classification of borrowers in 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 2023:

Credit risk rating grades	Bucket 1	Bucket 2	Bucket 3	Total
A	73,174	409,495	6,033	488,702
B	6	169	48,557	48,732
C	0	329	156	485

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 2022:

Credit risk rating grades	Bucket 1	Bucket 2	Bucket 3	Total
A	94,518	346,002	28,983	469,503
B	11	108	47,308	47,427
C	33	3,062	156	3,251

In addition, orders and receivables are secured by letters of credit from major banks amounting to EUR 2,536k as of 31 December 2023 (previous year: EUR 871k). 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 credit ratings and in addition there are no material dependencies. The end customer business in the form of private customers is of minor importance to the Group.

In the operating business, receivables are monitored on an ongoing, decentralised basis, so that the Group is not exposed to any material credit risk. The trade and other receivables in the amount of EUR 459,428k (previous year: EUR 398,370k), contract assets in the amount of EUR 87,192k (previous year: EUR 75,317k) as well as other financial assets in the amount of EUR 200,836k (previous year: EUR 214,272k) reported in assets represent the maximum credit risk.

The maturity structure, the applied default rate on trade receivables and on contract assets in accordance with IFRS 15 as at the current balance sheet date, which are not individually impaired (bucket 3), is shown below per segment and reconciles in each case from the gross book values to the net book value:

Valuation adjustments for trade receivables – Engineering as of 31 December 2023:

Overdue in days	not over-due	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	0.35%	0.57%	1.20%	4.16%	20.78%	28.20%	51.11%	
Gross book value net of payments received on account in kEUR	110,828	25,873	5,826	1,371	2,050	656	225	**146,829**
Expected credit loss over lifetime	-388	-148	-70	-57	-426	-185	-115	**-1,389**
Net book value after valuation adjustment in kEUR	**110,440**	**25,725**	**5,756**	**1,314**	**1,624**	**471**	**110**	**145,440**

Valuation adjustments for trade receivables – Mining as of 31 December 2023:

Overdue in days	not overdue	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	0.07%	1.46%	10.00%	1.10%	1.63%	0.00%	0.00%	
Gross book value net of payments received on account in kEUR	184,102	10,195	370	91	1,226	29	13	**196,026**
Expected credit loss over lifetime	-121	-149	-37	-1	-20	0	0	**-328**
Net book value after valuation adjustment in kEUR	**183,981**	**10,046**	**333**	**90**	**1,206**	**29**	**13**	**195,698**

Valuation adjustments for trade receivables – Med Tech as of 31 December 2023:

Overdue in days	not overdue	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	0.10%	0.49%	0.74%	1.64%	1.98%	3.39%	5.31%	
Gross book value net of payments received on account in kEUR	44,116	5,685	2,441	1,345	2,885	974	716	**58,162**
Expected credit loss over lifetime	-45	-28	-18	-22	-57	-33	-38	**-241**
Net book value after valuation adjustment in kEUR	**44,071**	**5,657**	**2,423**	**1,323**	**2,828**	**941**	**678**	**57,921**

Valuation adjustments for trade receivables – Aviation as of 31 December 2023:

Overdue in days	not overdue	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	0.01%	0.00%	0.00%	60.00%	100.00%	100.00%	-	
Gross book value net of payments received on account in kEUR	6,740	840	508	5	5	3	-	**8,101**
Expected credit loss over lifetime	-1	0	0	-3	-5	-3	-	**-12**
Net book value after valuation adjustment in kEUR	**6,739**	**840**	**508**	**2**	**0**	**0**	**0**	**8,089**

Valuation adjustments for contract assets – Engineering as of 31 December 2023:

Overdue in days	**not overdue**
Loss rate	0.34%
Gross book value net of payments received on account in kEUR	85,620
Expected credit loss over lifetime	-287
Net book value after valuation adjustment in kEUR	**85,333**

Valuation adjustments for contract assets – Mining as of 31 December 2023:

Overdue in days	**not overdue**
Loss rate	96.63%
Gross book value net of payments received on account in kEUR	44,036
Expected credit loss over lifetime	-42,552
Net book value after valuation adjustment in kEUR	**1,484**

Valuation adjustments for contract assets – Med Tech as of 31 December 2023:

Overdue in days	**not overdue**
Loss rate	0.00%
Gross book value net of payments received on account in kEUR	375
Expected credit loss over lifetime	0
Net book value after valuation adjustment in kEUR	**375**

Valuation adjustments for contract assets – Aviation as of 31 December 2023:

Overdue in days	**not overdue**
Loss rate	-
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 2022:

Overdue in days	not overdue	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	0.72%	1.44%	1.56%	3.03%	20.80%	26.44%	8.87%	
Gross book value net of payments received on account in kEUR	117,671	16,501	4,410	2,146	1,380	450	1,420	**143,978**
Expected credit loss over lifetime	-852	-238	-69	-65	-287	-119	-126	**-1,756**
Net book value after valuation adjustment in kEUR	**116,819**	**16,263**	**4,341**	**2,081**	**1,093**	**331**	**1,294**	**142,222**

Valuation adjustments for trade receivables – Mining as of 31 December 2022:

Overdue in days	not overdue	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	2.48%	0.22%	0.64%	0.59%	0.47%	0.00%	-	
Gross book value net of payments received on account in kEUR	119,902	8,939	1,728	338	12,820	852	0	**144,579**
Expected credit loss over lifetime	-2,970	-20	-11	-2	-60	0	0	**-3,063**
Net book value after valuation adjustment in kEUR	**116,932**	**8,919**	**1,717**	**336**	**12,760**	**852**	**0**	**141,516**

Valuation adjustments for trade receivables – Med Tech as of 31 December 2022:

Overdue in days	not overdue	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	0.12%	0.48%	0.69%	1.41%	1.59%	3.13%	10.53%	
Gross book value net of payments received on account in kEUR	42,336	3,307	4,180	637	941	32	19	**51,452**
Expected credit loss over lifetime	-51	-16	-29	-9	-15	-1	-2	**-123**
Net book value after valuation adjustment in kEUR	**42,285**	**3,291**	**4,151**	**628**	**926**	**31**	**17**	**51,329**

Valuation adjustments for trade receivables – Aviation as of 31 December 2022:

Overdue in days	not overdue	< 30	30 - 60	61 - 90	91 - 180	181 - 360	> 360	Total
Loss rate	0.10%	0.66%	1.76%	0.00%	5.49%	-	-	
Gross book value net of payments received on account in kEUR	5,238	1,970	796	1	255	0	0	**8,260**
Expected credit loss over lifetime	-5	-13	-14	0	-14	0	0	**-46**
Net book value after valuation adjustment in kEUR	**5,233**	**1,957**	**782**	**1**	**241**	**0**	**0**	**8,214**

Valuation adjustments for contract assets – Engineering as of 31 December 2022:

Overdue in days	**not overdue**
Loss rate	0.74%
Gross book value net of payments received on account in kEUR	73,703
Expected credit loss over lifetime	-542
Net book value after valuation adjustment in kEUR	**73,161**

Valuation adjustments for contract assets – Mining as of 31 December 2022:

Overdue in days	**not overdue**
Loss rate	95.54%
Gross book value net of payments received on account in kEUR	44,744
Expected credit loss over lifetime	-42,749
Net book value after valuation adjustment in kEUR	**1,995**

Valuation adjustments for contract assets – Med Tech as of 31 December 2022:

Overdue in days	**not overdue**
Loss rate	0.00%
Gross book value net of payments received on account in kEUR	161
Expected credit loss over lifetime	0
Net book value after valuation adjustment in kEUR	**161**

Valuation adjustments for contract assets – Aviation as of 31 December 2022:

Overdue in days	**not overdue**
Loss rate	-
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 Holding / Consolidation segment is omitted for reasons of materiality.

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

For securities, the book value of the securities represents the maximum default risk. Forward exchange transactions, that are not included in hedge accounting, are economically opposed to underlying transactions. Here, too, the book value as of balance sheet date best reflects the maximum default risk.

Risk of changes in interest rates

The Group's financing is secured to a certain extent through external bank financing. The ATON Group is therefore generally exposed to fluctuations in market interest rates. Fluctuations in interest rates primarily concern liabilities to banks. The latter include current account overdrafts as well as variable-rate loans and are therefore directly affected by changes in interest rates. These changes affect future cash flows. In our opinion, there is no material risk from fluctuations in market interest rates.

The table below shows the sensitivity of the Group’s consolidated earnings before income taxes to a reasonably possible change in interest rates. All other variables remain unchanged.

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

in EUR '000	Change in interest rate in basis points	Impact on profit after tax	Impact on equity
2023	+ 100	- 535	- 535
	./. 100	535	535
2022	+ 100	- 345	- 345
	./. 100	345	345

Foreign currency risk

Foreign currency risks result from investments, financing transactions and operating activities. Significant foreign currency risks are hedged to the extent that 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 entities into the Group’s reporting currency) are generally not hedged.

Foreign currency risks regularly relate to receivables and liabilities denominated in currencies other than the local currencies of the ATON Group companies 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 and the Canadian dollar.

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 current operating activities is considered to be 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 only used to hedge existing or expected foreign currency risks.

As of 31 December 2023, material receivables and payables exist only in US dollars, in British Pound, in Swiss Franc and South African Rand. As part of a sensitivity analysis, the non-derivative and derivative financial instruments existing at the end of the reporting period were measured in a hypothetical scenario. The effects of a 10 % increase / decrease in a currency per currency relation on the profit after taxes and on equity as of 31 December 2023 and 31 December 2022 are as follows:

in EUR '000	change in %	EUR/USD	EUR/GBP	EUR/CHF	EUR/ZAR
2023	10	1,828	350	154	40
	./. 10	- 1,496	- 287	- 126	- 33
2022	10	773	-	62	- 254
	./. 10	- 633	-	- 51	208

As of the balance sheet date, for the currency risks of Euro towards Canadian dollar and US dollar towards Euro, partly opposing hedging transactions with different maturities and different hedging rates have been concluded, for which no hedge accounting is applied. A 10 % increase of the Canadian dollar against the Euro would have an effect of EUR -2,076k (previous year: EUR -1,915k), and a 10 % decrease would have an effect of EUR 1,592k (previous year: EUR 2,549k). A 10 % increase of the US dollar against the Euro would have an effect of EUR 1,444 (previous year: EUR 0k), and a 10 % decrease would have an effect of EUR -1,788k (previous year: EUR 0k).

In addition, as of the balance sheet date, there are translation risks mainly resulting from the currency translation of Canadian dollar balances (as functional currency of Redpath Group) into the ATON Group's reporting currency Euro. These only affect equity (other comprehensive income) and amount to EUR -12,081k (previous year: EUR -18,283k) in the case of a 10 % increase of the Canadian dollar against the Euro and EUR 9,884k (previous year: EUR 14,959k) in the case of a 10 % decrease of the Canadian dollar against the Euro.

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

The currency sensitivity analysis are based on the following assumptions: Significant non-derivative financial instruments (cash and cash equivalents, receivables, interest-bearing liabilities, liabilities from leases, non-interest-bearing liabilities) are either directly denominated in the functional currency or, in significant cases, are transferred into the functional currency by using derivatives.

Equity instruments held are non-monetary and therefore not exposed to foreign currency risk as defined by IFRS 7.

Liquidity risk

Ensuring permanent solvency is basically the responsibility and control of the respective management of the subgroups and single entities. The centrally defined goal of the Group is to ensure that financial requirements are continuously covered by using current account overdrafts, loans and leases. Central monitoring of the liquidity of the individual Group companies is performed by weekly reports to the parent company ATON 2 GmbH. 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 to be low. Nevertheless, liquidity continues to be ensured through medium-term and long-term credit lines. In general, attention is paid to sufficient free credit lines. The financing of upcoming investments is ensured in good time through appropriate measures.

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

Covenant Risk

Financing contracts with banks often include covenants that are based on predefined financial ratios. Essentially, the covenants are equity ratios and debt rations and, in some cases, interest coverage ratios. The obligations from the credit clauses are subject to a permanent review with regard to the current financial situation of the companies, among other things, which can be used to identify risks at an early stage. In the financial year 2023, the covenant conditions (also at the level of the subsidiaries) 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 affect the prices of financial instruments. In particular, stock exchange prices or indices can be considered as risk variables.

in EUR '000	Change in prices in basis points	Impact on profit after tax	Impact on equity
2023	+ 100	1,020	1,020
	./. 100	- 1,020	- 1,020
2022	+ 100	1,059	1,059
	./. 100	- 1,059	- 1,059

For further risk analyses according to value-at-risk as a risk variable, please refer to the information presented in the Group management report in chapter **VI.2 Risks.**

There were no significant risk concentrations in the ATON Group as of the reporting date 2023.

Capital management / control

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

The Group manages its capital structure and makes adjustments taking into account changes in the economic environment.

Capital management is primarily with the help of a dynamic debt ratio (I and II), which corresponds to the ratio of first- and second-degree of net financial liabilities to EBITDA. The debt ratio I to be 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 remained within the specified ranges:

in EUR '000	2023	2022
EBITDA	240,923	228,897
Liabilities to banks	220,487	173,922
Leasing liabilities	343,709	319,177
Other financial liabilities	1,050	3,296
	565,246	**496,395**
Cash and cash equivalents	330,892	383,457
First-degree net financial assets (-) / net financial liabilities (+)	**234,354**	**112,938**
Liabilities to shareholders/related parties	56,681	17,551
Investments in securities that can be liquidated at short notice	101,957	105,921
Second-degree net financial assets (-) / net financial liabilities (+)	**189,078**	**24,568**
Dynamic debt ratio I	**1.0**	**0.5**
Dynamic debt ratio II	**0.8**	**0.1**

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. Currency hedging is usually only carried out 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 exactly corresponds 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 on the 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. Consequently, as in the previous year, there were effects from hedge accounting in the consolidated income statement or in the consolidated statement of comprehensive income.

36. Segment Reporting

The management board is the main decision maker of the Group. Management has determined the operating segments for purposes of resource allocation and performance assessment. The management board defines the activities from a product perspective with the Engineering, Mining, Med Tech and Aviation segments.

The range of services offered in the **Engineering segment** covers, in particular, the areas of engineering and plant construction for the automotive industry, along with other sectors of the mobility industry. In addition, high-performance electric motors are manufactured to customer requirements. Furthermore, this segment develops and offers new high-tech solutions for innovative products, primarily through the application of metallic layers to almost all kind of surfaces.

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

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

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

The management board assesses the performance of the operating segments with a focus on gross revenue, EBIT and EAT.

Sales between segments are carried out in accordance with standard market practices. The revenue from external parties reported to the management board is measured in a manner consistent with that in the income statement.

The non-operating result contains the result from disposal of consolidated subsidiaries, from disposal of fixed assets, income and expenses from foreign currency translation, income from the reversal of provisions as well as other income and expenses from previous years.

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

	Engineering		Mining		Med Tech	
in EUR '000	**2023**	**2022**	**2023**	**2022**	**2023**	**2022**
External revenue (net)	909,113	846,532	952,763	774,415	232,343	202,506
Internal revenue (net)	115	139	11	-	-	-
Revenue	**909,228**	**846,671**	**952,774**	**774,415**	**232,343**	**202,506**
Changes in inventories and own work capitalised	2,555	3,254	681	321	7,965	11,550
Gross revenue	**911,783**	**849,925**	**953,455**	**774,736**	**240,308**	**214,056**
Non-operating result	3,082	13,026	-517	3,589	809	2,373
Impairment losses / reversal of impairment losses on financial assets	-343	-973	-873	-3,240	-30	-407
EBITDA	**99,822**	**101,706**	**104,678**	**80,029**	**36,698**	**32,079**
Depreciation and amortisation	-62,874	-73,040	-58,401	-58,220	-10,328	-10,111
Impairment losses	-400	-20	-1,693	-5,112	-	-
EBIT	**36,548**	**28,646**	**44,584**	**16,697**	**26,370**	**21,968**
Financial result	-8,598	-5,216	-15,867	-96,591	-1,124	-265
thereof interest income	2,981	682	879	142	40	27
thereof interest expense	-12,774	-6,973	-10,366	-5,327	-982	-710
thereof result from at equity investments	1,195	741	-1,873	-50,877	-	-
EBT	**27,950**	**23,430**	**28,717**	**-79,894**	**25,246**	**21,703**
Income taxes	-8,998	-5,200	-14,120	-7,592	-8,514	-6,658
EAT	**18,952**	**18,230**	**14,597**	**-87,486**	**16,732**	**15,045**
EAT attributable to non-controlling interest	4,488	2,503	-3,114	-6,264	-	-
EAT attributable to owners of the parent	**14,464**	**15,727**	**17,711**	**-81,222**	**16,732**	**15,045**

	Engineering		Mining		Med Tech	
in EUR '000	**31.12.2023**	**31.12.2022**	**31.12.2023**	**31.12.2022**	**31.12.2023**	**31.12.2022**
Segment assets	776,452	775,731	678,283	577,407	291,635	263,830
Segment liabilities	634,960	637,899	348,014	253,801	97,127	84,529

	Aviation		Holding/Consolidation		ATON Group	
in EUR '000	**2023**	**2022**	**2023**	**2022**	**2023**	**2022**
External revenue (net)	106,648	126,674	5,740	313	2,206,607	1,950,440
Internal revenue (net)	-	8	-126	-147	-	-
Revenue	**106,648**	**126,682**	**5,614**	**166**	**2,206,607**	**1,950,440**
Changes in inventories and own work capitalised	-	-	-	31	11,201	15,156
Gross revenue	**106,648**	**126,682**	**5,614**	**197**	**2,217,808**	**1,965,596**
Non-operating result	46	455	522	-138	3,942	19,305
Impairment losses / reversal of impairment losses on financial assets	-77	808	3,042	16,349	1,719	12,537
EBITDA	**6,583**	**7,598**	**-6,858**	**7,485**	**240,923**	**228,897**
Depreciation and amortisation	-3,747	-3,345	-663	-628	-136,013	-145,344
Impairment losses	-	-	-	-	-2,093	-5,132
EBIT	**2,836**	**4,253**	**-7,521**	**6,857**	**102,817**	**78,421**
Financial result	994	356	17,185	-20,334	-7,410	-122,050
thereof interest income	181	289	6,046	3,209	10,127	4,349
thereof interest expense	-788	-365	313	-147	-24,597	-13,522
thereof result from at equity investments	1,557	1,344	-5,183	-9,514	-4,304	-58,306
EBT	**3,830**	**4,609**	**9,664**	**-13,477**	**95,407**	**-43,629**
Income taxes	-1,218	-944	-1,034	23,130	-33,884	2,736
EAT	**2,612**	**3,665**	**8,630**	**9,653**	**61,523**	**-40,893**
EAT attributable to non-controlling interest	-	-	-	-	1,374	-3,761
EAT attributable to owners of the parent	**2,612**	**3,665**	**8,630**	**9,653**	**60,149**	**-37,132**

	Aviation		Holding/Consolidation		ATON Group	
in TEUR	**31.12.2023**	**31.12.2022**	**31.12.2023**	**31.12.2022**	**31.12.2023**	**31.12.2022**
Segment assets	75,666	68,557	462,484	577,907	2,284,520	2,263,432
Segment liabilities	47,008	42,512	7,321	953	1,134,430	1,019,694

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

37. Auditor‘s fees

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

in EUR '000	2023	2022
Audits	739	708
Other attestation services	-	-
Tax consultation services	-	-
Other services	-	-
Total	**739**	**708**

38. Related party transactions

In addition to the subsidiaries included in the consolidated financial statements, ATON 2 GmbH has direct or indirect relationships with shareholders, non-consolidated subsidiaries, associates, joint ventures and other related parties in the course of its 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 hold a key position in the management of the ATON Group. Furthermore, the ATON Group has relationships with related entities (non-consolidated subsidiaries, companies accounted for using the equity method).

The volume of revenue and income realised by the ATON Group with related parties and the outstanding receivables as at the reporting date are as follows:

in EUR ’000	2023 Revenue, other income and interest	31.12.2023 Outstanding Receivables	2022 Revenue, other income and interest	31.12.2022 Outstanding Receivables
Investments accounted for using the equity method	129,481	28,266	101,942	9,642
Non-consolidated subsidiaries	8,478	859	9,955	848
Other related parties	8,650	93,983	19,090	93,525
Shareholders	2,374	-	101	11,047
Total	**148,983**	**123,108**	**131,088**	**115,062**

Income from companies accounted for using the equity method results primarily from service revenues, write-ups on investments accounted for using the equity method and the results of the investments. The previous year's figure for revenue with companies accounted for using the equity method were adjusted, as transactions with companies accounted for using the equity method were in some cases reported as transactions with third parties.

Income from non-consolidated subsidiaries relates to sales of goods and services.

Income from other related parties primarily results from sales of goods, the partial reversal of the individual risk allowance recognised in 2021 on subordinated loans to a related party and from interest income. The previous year's figure was adjusted as the partial reversal of the individual risk allowance recognised in 2021 on subordinated loans to a related party was not taken into account in the previous year.

Income with shareholders results from the sale of vintage cars and from interest income.

The receivables from other related parties mostly include loans and receivables from loans.

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

in EUR '000	2023 Purchased merchan-dise/services, other operating expenses and interest	31.12.2023 Outstanding Liabilities	2022 Purchased merchan-dise/services, other operating expenses and interest	31.12.2022 Outstanding Liabilities
Investments accounted for using the equity method	39,873	21,018	112,607	15,614
Non-consolidated subsidiaries	687	1,957	578	775
Other related parties	5,281	19,222	279	17,759
Shareholders	882	40,144	99	-
Total	**46,723**	**82,341**	**113,563**	**34,148**

Expenses with companies accounted for using the equity method result primarily from the impairment of the shares in Murray & Roberts as well as from the results of the investments.

Expenses with other related parties mainly result from purchased raw materials, consumables and supplies and services as well as from interest expenses.

Expenses with shareholders result primarily from interest expenses and the expenses for the remuneration of the shareholders represented in the Advisory Board.

Liabilities to related parties mostly include loans as well as balances from deliveries and services.

Liabilities to shareholders mainly relate to shareholder loans received.

In the EDAG Group there are long-term sale-and-leaseback agreements with six subsidiaries of KINREFD GmbH, Munich, for the use of five properties and their operating facilities with an original fixed term until 15 September 2030. In addition to this, there is a long-term real estate lease agreement with a subsidiary of KINREFD GmbH with a fixed term until 5 April 2026. HORUS Vermögensverwaltungs GmbH & Co. KG, Munich, a related party of EDAG, holds a 49.9% stake in KINREFD GmbH, Munich and its wholly owned subsidiaries with which EDAG has concluded long-term leases. An amendment to one of the original sale-and-leaseback agreements was concluded with IN Immo GmbH, one of the six above-mentioned subsidiaries of KINREFD GmbH in the previous year. This includes new premises and a new fixed term until 31 December 2035. At the reporting date, lease liabilities from the previously mentioned agreements amounting to EUR 38.8 million are reported in accordance with IFRS 16 (previous year: EUR 40.2 million). These are offset by right-of-use assets amounting to EUR 34.5 million at the reporting date (previous year: EUR 36.2 million).

In addition, there is a further long-term real estate lease agreement including operating facilities with a fixed term until 30 June 2036 with FR 73 Immobilien GmbH, Munich. HORUS Vermögensverwaltungs GmbH & Co. KG holds 49.9 % of the shares in this company. At the reporting date, lease liabilities from the above-mentioned agreement amounting to EUR 23.5 million are reported in accordance with IFRS 16 (previous year: EUR 29.6 million). These are offset by right-of-use assets amounting to EUR 22.9 million at the reporting date (previous year: EUR 29.3 million).

ATON GmbH has concluded a long-term real estate lease agreement with L53 Immobilien GmbH, Munich, for the use of office space and operating facilities with a fixed term until 31 August 2023, which has since been extended by a further 12 months due to non-cancellation. HORUS Vermögensverwaltungs GmbH & Co. KG, Munich, holds a 94.0 % stake in L53 Immobilien GmbH, which is a related party of ATON GmbH. At the reporting date, lease liabilities of EUR 5.0 million (previous year: EUR 5.3 million) are reported under this contract in accordance with IFRS 16. These are offset by right-of-use assets of EUR 4.9 million at the reporting date (previous year: EUR 5.2 million).

Rental and lease payments from the right-of-use assets of the aforementioned contracts totalled EUR 8,405k in the reporting period (previous year: EUR 6,828k).

Transactions with related parties are contractually agreed and conducted at arm’s length conditions.

Transactions with the management board

The remuneration paid to the management board amounts to EUR 2,984k in the financial year (previous year: 2,903k). Besides, the members of the key management personnel received an additional variable remuneration in the amount of EUR 1,650k (previous year: EUR 1,650k).

There were no advances or loans to members of the management board, nor were there contingent liabilities or pension obligations as of the reporting date.

39. List of shareholdings

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

40. Events after the balance sheet date

Redpath (Australia) Holdings Pty Ltd., a wholly owned subsidiary of Redpath Mining Inc., Canada, has signed a share purchase agreement on 1 March 2024 to acquire RUC Mining Contractors Pty Ltd., Australia. Regulatory approval for the transaction has now been granted. We expect the closing to take place in the second quarter of 2024 and thus gain control of the entity to be acquired.

The expected purchase price is of material importance to the ATON Group. However, the final purchase price has not yet been determined as it is subject to certain conditions precedent that are contained in the share purchase agreement and have not yet been finalised between the contracting parties at this time.

Furthermore, the required purchase price allocation for the acquired company still has to be carried out. As a result, it is not yet possible to make any statement on the potential impact of the acquisition on the Group's net assets, financial position and results of operations.

There were no other reportable events after the balance sheet date.

41. Responsibility statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of the Group, and the Group management report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the material opportunities and risks associated with the expected development of the Group.

Munich, 25 April 2024

ATON 2 GmbH
Management Board

[original German version signed by:]

Georg Denoke Dr. Wolfgang Salzberger

List of shareholdings (direct and indirect) of ATON 2 GmbH

As of 31 December 2023

No.	Company	City	Country	Share in % direct	Share in % indirect	Currency	Equity as per 31 Dec 2023	Net Result 2023
I. Affiliated Companies								
1. Consolidated Companies								
a) Domestic companies								
1.	Antriebssysteme Faurndau GmbH	Göppingen	Germany		100.0	kEUR	10,687	747
2.	AspiAir GmbH	Gemünden	Germany		100.0	kEUR	1,648	- 1,949
3.	ATON Digital Services GmbH	Munich	Germany		100.0	kEUR	32,228	96
4.	ATON GmbH	Munich	Germany	100.0		kEUR	813,630	8,737
5.	ATON MedTech GmbH	Munich	Germany		100.0	kEUR	81,466	14,199
6.	ATON - Oldtimer GmbH	Munich	Germany		100.0	kEUR	5,415	- 1,246
7.	DC Aviation GmbH	Stuttgart	Germany		100.0	kEUR	28,658	2,613
8.	ecoCOAT GmbH	Allershausen	Germany		51.0	kEUR	1,507	- 750
9.	EDAG aeromotive GmbH	Gaimersheim	Germany		100.0	kEUR	591	- 64
10.	EDAG Akademie GmbH	Wiesbaden	Germany		100.0	kEUR	213	0
11.	EDAG Engineering GmbH	Wiesbaden	Germany		100.0	kEUR	248,759	0
12.	EDAG Engineering Holding GmbH	Munich	Germany		100.0	kEUR	68,468	17,284
13.	EDAG Production Solutions GmbH & Co. KG	Fulda	Germany		100.0	kEUR	1,971	3,867
14.	Krebs und Aulich GmbH	Wernigerode	Germany		100.0	kEUR	3,724	666
15.	Redpath Deilmann GmbH	Dortmund	Germany		100.0	kCAD	102,729	14,896
16.	Ziehm Imaging GmbH	Nuremberg	Germany		100.0	kEUR	151,044	477
b) Foreign Companies								
17.	ATON Austria Holding GmbH	Going am Wilden Kaiser	Austria		100.0	kEUR	503,599	9,279
18.	Autotest Südtirol GmbH	Franzensfeste	Italy		100.0	kEUR	8,032	397
19.	Deilmann-Haniel Schachtostroj OOO	Berezniki	Russia		100.0	kCAD	1,933	317
20.	EDAG do Brasil Ltda.	Sao Bernardo do Campo	Brazil		100.0	kBRL	19,080	1,671
21.	EDAG Engineering Austria GmbH	Steyr	Austria		100.0	kEUR	- 67	- 102
22.	EDAG Engineering and Design (Shanghai) Co. Ltd.	Shanghai	China		100.0	kCNY	39,490	5,157
23.	EDAG Engineering CZ spol. s.r.o.	Mladá Boleslav	Czech Republic		100.0	kCZK	62,073	23,878
24.	EDAG Engineering Group AG	Arbon	Switzerland		74.7	kEUR	442,707	- 3,312
25.	EDAG Engineering Ltd.	Markyate	Great Britain		100.0	kGBP	- 197	27
26.	EDAG Engineering Polska Sp.z.o.o.	Warszawa	Poland		100.0	kPLN	12,918	6,464
27.	EDAG Engineering Scandinavia AB	Goteborg	Sweden		100.0	kSEK	22,987	6,133
28.	EDAG Engineering Schweiz GmbH	Arbon	Switzerland		100.0	kCHF	1,629	485
29.	EDAG Engineering Spain S.L.	Cornellá de Llobre-gat	Spain		100.0	kEUR	13,493	975
30.	EDAG Holding Sdn. Bhd. Malaysia	Shah Alam	Malaysia		100.0	kMYR	3,909	932
31.	EDAG Hungary Kft.	Györ	Hungary		100.0	kHUF	974,425	180,823
32.	EDAG Inc.	Troy	USA		100.0	kUSD	10,842	28
33.	EDAG Italia S.R.L.	Torino	Italy		100.0	kEUR	2,724	90
34.	EDAG Japan Co. Ltd.	Yokohama	Japan		100.0	kJPY	53,440	11,681
35.	EDAG México S.A. de C.V.	Puebla	Mexico		100.0	kMXN	75,036	8,057
36.	EDAG Netherlands B.V.	Helmond	Netherlands		100.0	kEUR	1,700	307
37.	EDAG Production Solutions Inc. (former: CKGP/PW & Associates Inc.)	Troy	USA		100.0	kUSD	3,377	318
38.	EDAG Production Solutions India Priv. Ltd.	New Dehli	India		100.0	kINR	219,229	400
39.	EDAG SERVICIOS México S.A. de C.V.	Puebla	Mexico		100.0	kMXN	10	0
40.	EDAG Technologies India Priv. Ltd.	New Dehli	India		100.0	kINR	52,544	9,041
41.	EDAG Turkey Mühendislik Limited Şirketi	Gebze/Kocaeli	Turkey		100.0	kTRY	23,509	10,271

No.	Company	City	Country	Share in % direct	Share in % indirect	Currency	Equity as per 31 Dec 2023	Net Result 2023
b) Foreign Companies								
42.	Eroc Holdings Pty Limited	Brisbane	Australia		100.0	kCAD	4	0
43.	HRM Engineering AB	Goteborg	Sweden		100.0	kSEK	9,756	0
44.	Les Entreprises Minières Redpath Ltée.	Montreal	Canada		100.0	kCAD	79	0
45.	PT Redpath Indonesia	Jakarta	Indonesia		100.0	kCAD	55,421	20,563
46.	RDMI Freezing JV Ltd.	Whatton, Notting-ham	Great Britain		60.0	kCAD	0	0
47.	Redpath Africa Limited	Ebene	Mauritius		100.0	kCAD	22,287	- 11,494
48.	Redpath Argentina Construcciones S.A.	San Juan	Argentina		100.0	kCAD	- 1	0
49.	Redpath (Australia) Holdings Pty Limited	Brisbane	Australia		100.0	kCAD	5,684	- 2,250
50.	Redpath Australia Coal Pty Ltd	Brisbane	Australia		100.0	kCAD	143	0
51.	Redpath Australia Pty Limited	Brisbane	Australia		100.0	kCAD	46,072	14,534
52.	Redpath Canada Limited	North Bay	Canada		100.0	kCAD	140,986	36,099
53.	Redpath Chilena Construcciones Y Cia. Limitada	Santiago	Chile		100.0	kCAD	- 1,289	0
54.	Redpath Contract Services Pty Ltd.	Brisbane	Australia		100.0	kCAD	30,601	3,089
55.	Redpath Deilmann Belschachtostroj OOO	Soligorsk	Belarus		99.9	kCAD	702	33
56.	Redpath Deilmann UK Limited	Birmingham	Great Britain		100.0	kCAD	23,157	15,871
57.	Redpath-Deilmann d.o.o. Beograd	Belgrade	Republic of Serbia		100.0	kCAD	0	0
58.	Redpath Global Mobility Services Inc.	North Bay	Canada		100.0	kCAD	- 1,837	- 1,107
59.	Redpath Greece Private Company	Athens	Greece		100.0	kCAD	40	- 8
60.	Redpath Guatemala Construc-ciones S.A.	Guatemala	Guatemala		100.0	kCAD	17	0
61.	Redpath KR LLC	Bishkek	Kyrgyzstan		100.0	kCAD	0	0
62.	Redpath Mexicana Construcciones SA de CV	Mexico City	Mexico		100.0	kCAD	3	0
63.	Redpath Mining Contractors Limited	Kitwe	Zambia		100.0	kCAD	- 35,800	- 16,377
64.	Redpath Mining Inc.	North Bay	Canada		100.0	kCAD	96,428	2,857
65.	Redpath Mining (S.A.) (Pty.) Ltd.	Johannesburg	South Africa		63.0	kCAD	- 34,722	- 13,141
66.	Redpath Mongolia LLC	Ulaanbaatar	Mongolia		100.0	kCAD	11,718	4,675
67.	Redpath Philippines Inc.	Makati	Philippines		100.0	kCAD	0	0
68.	Redpath PNG Limited	Port Moresby	Papua New Guinea		100.0	kCAD	1,022	- 38
69.	Redpath Raiseboring Limited	North Bay	Canada		100.0	kCAD	90,977	5,877
70.	Redpath USA Corporation	Sparks	USA		100.0	kCAD	31,128	2,358
71.	Redpath Venezolana C.A.	El Callao	Venezuela		100.0	kCAD	0	0
72.	Redpath Zambia Limited	Lusaka	Zambia		63.0	kCAD	609	- 703
73.	RGP Deilmann d.o.o. Beograd-Novi Beograd	Belgrade	Republic of Serbia		100.0	kCAD	0	0
74.	Therenva SAS	Rennes	France		100.0	kEUR	2,789	1,259
75.	Triple S Insurance Company Limited	Bridgetown	Barbados		100.0	kCAD	40,874	7,894
76.	UnderAus Group Holdings Pty Limited	Brisbane	Australia		100.0	kCAD	6,359	0
77.	Ziehm Imaging Austria GmbH	Tulln	Austria		100.0	kEUR	763	369
78.	Ziehm Imaging Japan KK	Tokyo	Japan		100.0	kJPY	15,467	1,179
79.	Ziehm Imaging Middle East Trading LLC	Dubai	U.A.E.		100.0	kAED	0	0
80.	Ziehm Imaging OY	Kerava	Finland		100.0	kEUR	263	101
81.	Ziehm Imaging Sarl	Massy	France		100.0	kEUR	754	302
82.	Ziehm Imaging Singapore Pte. Ltd.	Singapore	Singapore		100.0	kSGD	936	131
83.	Ziehm Imaging Spain S.L.U.	Valencia	Spain		100.0	kEUR	439	85
84.	Ziehm Imaging Srl a Socio Unico	Reggio Emilia	Italy		100.0	kEUR	3,216	987
85.	Ziehm Medical Do Brasil	Sao Paulo	Brazil		100.0	kBRL	549	463
86.	Ziehm Medical (Shanghai) Co. Ltd.	Shanghai	China		100.0	kCNY	9,761	4,953
87.	Ziehm-OrthoScan Inc.	Scottsdale	USA		100.0	kUSD	36,542	2,798

No.	Company	City	Country	Share in % direct	Share in % indirect	Currency	Equity as per 31 Dec 2023	Net Result 2023
2. Non-Consolidated affiliates, which are measured at fair value								
a) Domestic Companies								
88.	EDAG-Beteiligung GmbH	Fulda	Germany		100.0	kEUR	42	2
89.	EDAG Production Solutions Verwaltungs GmbH	Fulda	Germany		100.0	kEUR	24	4
90.	OneFiber Interconnect Germany GmbH	Munich	Germany		96.1	kEUR	7,194	- 3,946
91.	Parkmotive GmbH	Fulda	Germany		100.0	kEUR	15	- 1
b) Foreign companies								
92.	DC Aviation Holding Ltd.	Gudja	Malta		99.99	kEUR	376	66
93.	DC Aviation Ltd.	Gudja	Malta		99.8	kEUR	504	213
94.	Krebs & Aulich Electromechanical Testings Machines Co. Ltd.	Shanghai	China		100.0	kCNY	- 3,896	1,081
II. Joint Ventures - Equity-method investments								
1. Consolidated Companies								
a) Domestic Companies								
95.	Arbeitsgemeinschaft BS Schachtanlage ASSE	Mülheim an der Ruhr	Germany		50.0	kCAD	3,485	- 3
96.	Arbeitsgemeinschaft Burg Altena	Schmallenberg	Germany		50.0	kCAD	- 641	0
97.	Arbeitsgemeinschaft Konrad Versatzaufbereitung Los 1	Dortmund	Germany		50.0	kCAD	61	2,139
98.	Arbeitsgemeinschaft Neuhof Ellers	Dortmund	Germany		50.0	kCAD	4	0
99.	Arbeitsgemeinschaft Schacht Konrad 1	Mülheim an der Ruhr	Germany		50.0	kCAD	17,509	3,400
100.	Arbeitsgemeinschaft Schacht Konrad 2	Mülheim an der Ruhr	Germany		50.0	kCAD	52,590	25,939
101.	Arbeitsgemeinschaft Schacht Konrad Notfahreinrichtung	Dortmund	Germany		50.0	kCAD	- 16	- 1
102.	Arbeitsgemeinschaft Sanierung Schacht Zielitz 1	Mülheim an der Ruhr	Germany		50.0	kCAD	526	472
103.	Arbeitsgemeinschaft Schächte Bergwerk Siegmundshall	Mülheim an der Ruhr	Germany		50.0	kCAD	187	- 1
104.	Arbeitsgemeinschaft Vorbausäule Schacht Neurode	Dortmund	Germany		50.0	kCAD	- 1,491	0
105.	ARGE Demontagekammer Ibbenbüren Schacht 1	Dortmund	Germany		60.0	kCAD	1,239	505
106.	ARGE Einrichtung Schachtförderanlage Konrad 2	Mülheim an der Ruhr	Germany		50.0	kCAD	2,994	1,525
107.	ARGE HWB Konrad (AHK)	Mülheim an der Ruhr	Germany		50.0	kCAD	67	37
108.	ARGE Innenschale Ibbenbüren Schacht 1	Dortmund	Germany		60.0	kCAD	0	0
109.	ARGE Schächte Heilbronn (ASH)	Dortmund	Germany		50.0	kCAD	0	0
110.	ARGE Verfüllung Gorleben (AVG)	Dortmund	Germany		50.0	kCAD	- 138	- 138
111.	ARGE Wasseraufbereitung Reden 4/5	Saarbrücken	Germany		33.3	kCAD	4,031	387
112.	JV Freezing Comol-5	Dortmund	Germany		60.0	kCAD	1,123	0

No.	Company	City	Country	Share in % direct	Share in % indirect	Currency	Equity as per 31 Dec 2023	Net Result 2023
b) Foreign Companies								
113.	AESA Redpath Mining S.A.C.	Lima	Peru		50.0	kCAD	3,001	1,753
114.	Associated Mining Construction Inc.	Regina	Canada		50.0	kCAD	461	0
115.	Black Diamond – Redpath GP Inc.	Matheson	Canada		49.0	kCAD	0	0
116.	Dayan Contract Mining LLC	Ulaanbaatar	Mongolia		49.0	kCAD	200	62
117.	DC Aviation Al Futtaim LLC	Dubai	U.A.E.		49.0	kEUR	- 2,843	2,502
118.	DC Aviation G-OPS S.A.S.	Roissy en France	France		50.0	kEUR	692	884
119.	DC Aviation San Marino S.R.L.	Dogana	San Marino		49.0	kEUR	- 171	- 197
120.	Deilmann-Haniel & Drillcon Iberia ACE	Braga	Portugal		50.0	kCAD	11	0
121.	Innu-Inuit Redpath Limited Partnership	Newfoundland	Canada		33.0	kCAD	21,561	12,355
122.	TRL Mining Construction LP	Regina	Canada		33.0	kCAD	2,794	- 2,261

III. Investments in associates and investment measured at fair value

1. Companies accounted for using the equity method

No.	Company	City	Country	Share in % direct	Share in % indirect	Currency	Equity as per 31 Dec 2023	Net Result 2023
a) Domestic Companies								
123.	EDAG Werkzeug + Karosserie GmbH	Fulda	Germany		49.0	kEUR	25,402	2,774
b) Foreign Companies								
124.	Murray & Roberts Holdings Ltd. *	Bedfordview	South Africa		43.8	kZAR	1,654,000	- 740,000
125.	Redpath Thonket Mining Services Ghana Limited	Kumasi	Ghana		49.0	kCAD	1,016	25
2. Companies accounted for at fair value								
a) Domestic Companies								
126.	MD 7 Immobilien GmbH	Munich	Germany		10.1	kEUR	1,436	287
127.	MD7 BV GmbH	Munich	Germany		10.1	kEUR	163	0
b) Foreign Companies								
128.	Aveng Ltd. *	Johannesburg	South Africa		2.2	kZAR	3,162,000	- 1,320,000
	Grey Orange International Inc. **	Roswell	USA		1.3	kUSD	- 202,835	- 30,957
130.	Vist Tech GmbH ***	Kaltern	Italy		26.7	kEUR	n/a	n/a

* Figures from the interim consolidated financial statements, as Murray & Roberts Holdings Ltd. and Aveng Ltd. have a different financial year.

** Deviating financial year from 1 April - 31 March; equity as at 31 December 2023 and the interim result as at 31 December 2023 are presented here.

*** No figures received for fiscal year 2023. For Vist Tech GmbH bankruptcy proceedings were started in March 2023.

INDEPENDENT AUDITOR'S REPORT

To ATON 2 GmbH, Munich/Germany

Audit Opinions

We have audited the consolidated financial statements of ATON 2 GmbH, Munich/Germany, and its subsidiaries (the Group) which comprise the consolidated balance sheet as at 31 December 2023, the consolidated income statement, 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 2023, 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 2 GmbH, Munich/Germany, for the financial year from 1 January to 31 December 2023.

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 IFRS as adopted by the EU and the additional requirements of German commercial law pursuant to 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 2023 and of its financial performance for the financial year from 1 January to 31 December 2023, 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 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 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 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 IFRS as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB, and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position and financial performance of the Group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud (i.e. fraudulent financial reporting and misappropriation of assets) 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 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 judgement and maintain professional scepticism 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 the risk of not detecting a material misstatement resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.

- 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) 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.

Nuremberg/Germany, 25 April 2024

Deloitte GmbH
Wirtschaftsprüfungsgesellschaft

Signed:	Signed:
Sebastian Kiesewetter	Stefan Otto
Wirtschaftsprüfer	Wirtschaftsprüfer
(German Public Auditor)	(German Public Auditor)

TRANSLATION
– German version prevails –