

Group Management Report as at 31 December 2023

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Economic environment

Compared to other sectors of the economy, the areas in which the Frequentis Group operates (information and communication systems for civil and military air traffic control, emergency services, rail, and water transport) have relatively low cyclical exposure. Frequentis' business performance would be adversely affected by a significant global decline in one of these five areas. Frequentis cannot completely avoid general economic developments. However, it supplies safety-critical infrastructure, which cannot be dispensed with and has to be upheld and maintained even in periods of crisis.

The International Monetary Fund (IMF) published its World Economic Outlook Update in January 2024¹. Global growth was 3.1% in 2023 and is projected to be at 3.1% in 2024 as well, with the 2024 forecast 0.2 percentage point higher than that in the October 2023 World Economic Outlook. The forecast is, however, below the historical (2000–2019) average of 3.8%, with elevated central bank policy rates to fight inflation, a withdrawal of fiscal support amid high debt weighing on economic activity, and low underlying productivity growth.

With disinflation and steady growth, the likelihood of a hard landing has receded, and risks to global growth are broadly balanced. On the upside, faster disinflation could lead to further easing of financial conditions. Looser fiscal policy than necessary and than assumed in the projections could imply temporarily higher growth, but at the risk of a more costly adjustment later on. Stronger structural reform momentum could bolster productivity with positive cross-border spillovers. On the downside, new commodity price spikes from geopolitical shocks – including continued attacks in the Red Sea – and supply disruptions or more persistent underlying inflation could prolong tight monetary conditions. Deepening property sector woes in China or, elsewhere, a disruptive turn to tax hikes and spending cuts could also cause growth disappointments.

For the USA, the IMF is projecting growth of 2.1% in 2024. It estimates that the economy in the euro zone will grow by 0.9% in 2024. For the major economies in the euro zone, it predicts different growth rates in 2024, led by Spain (1.5%), ahead of France (1.0%), Italy (0.7%), and Germany (0.5%). The forecast for the UK is 0.6% growth in 2024.

For the emerging and developing economies in Asia, the projection is 5.2% growth in 2024. The IMF assumes growth of 1.9% for Latin America and 2.9% for the Middle East and Central Asia in 2024.

¹ <https://www.imf.org/en/Publications/WEO/Issues/2024/01/30/world-economic-outlook-update-january-2024>

Business performance

In 2023, the Frequentis Group increased revenue by 10.8%, based on the high level of orders on hand at year-end 2022 and good order intake. Thanks to Frequentis' stable business model as a provider of communication and information systems for control centres in the safety-critical sector, demand remains high, as shown by the 24.7% increase in order intake.

Significant events in 2023

Acquisition to strengthen expertise in cybersecurity

In April 2023, Frequentis acquired a 76.67% interest in FRAFOS GmbH, which is based in Berlin, Germany. FRAFOS delivers key security components for Frequentis' communication solutions for all safety-critical sectors. Solutions from FRAFOS are approved for safety-critical installations of government organisations and by Germany's Federal Office for Security and Information Technology (BSI).

FRAFOS is an expert in VoIP (Voice over Internet Protocol) firewalls, which support Frequentis in solutions for safety-critical operations by expanding protection against denial-of-service (DOS) attacks and attempted fraud.

Acquisition on the recorder market

In July 2023, Frequentis acquired 100% of the Norwegian software company GuardREC ATC AS, which has since been renamed Frequentis Recording AS as part of the integration process. This acquisition increases recording competence in all business areas. Its portfolio covers all aspects of surveillance as well as audio, video, and data recording, including data analysis. Frequentis' recording solution DIVOS is being merged with the solution that has been acquired to provide a new global product offer.

Impact of the geopolitical situation

In addition to the war in Ukraine, which started in February 2022 and is now entering its third year, Hamas' attack on Israel in October 2023 led to the outbreak of a new war with potentially global consequences. Moreover, there are longer-term crises such as the climate crisis and distortion and price volatility on the energy market. It is possible to talk about a polycrisis, where individual crises have a compound effect. At the same time, Europe, in particular, is stepping up investment in military infrastructure and public safety.

These crises affect Frequentis' internal and external stakeholders in many different ways. There were no relevant effects on Frequentis' revenues because it did not generate any revenues with Ukraine, Russian Federation, Belarus, or the Palestinian territories in 2023. Revenues from Israel were below EUR 1.0 million in 2023. However, the wars had an indirect effect through higher prices, especially for electricity, gas, and fuel.

Consequently, prices of other everyday products increased. Overall, inflation therefore rose sharply almost everywhere in the world and was well above the average for previous years in both 2022 and 2023. This resulted in the need to adjust prices for existing and new customer projects.

The inflation-related salary adjustments based on individual and collective salary agreements are reflected in the Frequentis Group's personnel expenses in both 2022 and 2023. Further cost rises are anticipated in 2024. This applies above all for Austria, where about half of Frequentis' workforce is employed. According to Eurostat, inflation was 7.7% (as at December 2023, annual average, year-on-year change). That was once again several percentage points above the average for the euro zone, which was 5.4%.

Recurrent supply chain bottlenecks caused by various factors (e.g. attacks on trade routes) have some impact on Frequentis, for instance through some sharp price rises and delays in the delivery of purchased materials. The increase in inventories was mainly due to increased stocking of components to ensure an adequate safety net to meet long-standing delivery and maintenance obligations despite the withdrawal of products by producers and supply bottlenecks.

Another aspect that could influence Frequentis' business is that more than a quarter of the world's population will have the opportunity to vote in elections in 2024. That could result in new governments, which could either initiate new investment plans or cut existing plans.

Order intake

Order intake in the Frequentis Group was EUR 504.8 million in 2023, an increase of 24.7% (EUR 100.0 million) compared with 2022, when order intake was EUR 404.8 million.

The distribution of order intake between the two segments in 2023 was as follows: Air Traffic Management 68% (EUR 345.4 million) compared with 68% in 2022 (EUR 275.4 million), Public Safety & Transport 32% (EUR 159.3 million), compared with 32% in 2022 (EUR 129.4 million).

Highlights of order intake in the Air Traffic Management segment

In the field of voice communication systems, Frequentis has been selected to upgrade the mission control voice conferencing technology at NASA's Johnson Air Space Center (JSC). NASA's current voice conferencing system at JSC is to be replaced by the next-generation Voice over IP (VoIP) conferencing system.

Another highlight in order intake for voice communication systems came from Norway. The country's air navigation service provider Avinor has ordered the X10 VCS geographically redundant voice communication system. Frequentis will also be supplying this system to NAV CANADA for one the world's largest air traffic control deployments, a county-wide voice communication and gateway project at 100 facilities with over 1,000 operator working positions.

The Norwegian air navigation service provider Avinor has also awarded Frequentis a contract to deliver the Advanced Network Management System (Advanced-NMS). Total operational awareness and real-time performance monitoring will enhance the security of Avinor's operations. This flexible and scalable solution evolves with customers' requirements.

In the USA, Frequentis has been selected by Verizon for the FAA's Enterprise Network Services (FENS) contract. The FAA (Federal Aviation Administration) is the US air traffic control organisation. One billion passengers use US airspace every year. In keeping with the FAA's mission to continue to provide the safest and most efficient airspace system in the world, the FENS programme will update the FAA's telecommunications network across the United States.

Further orders for voice communication systems were received from countries including Egypt, Bulgaria, the UK, and Mexico.

In the area of drones, the Lithuanian air navigation service provider has selected Frequentis to provide its proven UTM (uncrewed traffic management) solution to allow safe, efficient, and compliant integration of drones into Lithuanian airspace in response to growing use of drones in the country.

Demand for remote digital towers for both civil and military use remains high. For example, Frequentis is supporting the US Department of Defense in trials on transportable digital tower technology at several air force bases in the USA as part of a multi-site evaluation of digital tower technology.

In Australia, C4i, as a supplier to Lockheed Martin, will be providing its VOICE C2 solution for the Air650 project to ensure secure communications across air, land, sea, and space. The objective of this project for the Royal Australian Airforce (RAAF) is to enhance the security, rapid response, and interoperability of the country's defence systems.

Highlights of order intake in the Public Safety & Transport segment

In the Public Safety & Transport segment, the Public Safety business domain is increasing its market leadership with the emergency services in Germany. Police and local authorities in Lower Saxony, represented by the Central Police Directorate, have commissioned Frequentis to supply its multimedia communication solution 3020 LifeX. The implementation of this system across eight control centres, one alternate control centre, and one test system will take place in three phases. This project will establish a state-wide standard for the control centre communication system within an IP-based system environment in Lower Saxony.

In Bavaria, Germany, Frequentis has secured an order through the general contractor Sopra Steria to supply the ASGARD voice and data communication system for a total of 26 integrated control centres, three emergency control centres, the fire service dispatch centre in Munich, and a training and test environment at the fire fighter college in Geretsried. This state-wide project is being implemented by Sopra Steria in collaboration with Frequentis.

A centralised country-wide communication solution for medical emergency and non-emergency centres for up to 500 active operators is being delivered to Norway. This multimedia control room solution supports video and social media communication. Additionally, it includes mobile access for nurses treating patients in hospitals. This software-based solution will reduce operating and management costs.

Outside of Europe, Frequentis has been selected by Airservices Australia, the nation's air navigation service provider, to deliver a solution for its Aviation Rescue Fire Fighting Service. The solution will be made up of two components: the multimedia collaboration and communication platform 3020 LifeX, extended by the messenger, incident, and resource management module, OnSite.

In the Public Transport business domain, France's state-owned rail company SNCF Réseau has selected Frequentis to develop and supply a customised communication system for the entire French rail network as part of its strategic development plan to transform its network by 2030. Deployment of the new system to 3,600 dispatcher working positions and around 40,000 mobile apps will create a uniform operational communication platform. The FERCOM railway communication project paves the way for the transition to the Future Railway Mobile Communication System (FRMCS). The aim is to drive performance through digital innovation. In addition to its office in Toulouse, France, which has strong air traffic management competence, Frequentis will be establishing a new location in Paris dedicated to the public transport market.

In the area of innovation, a high-profile drone-based project has been realised in collaboration with the Austrian Federal Railways (ÖBB). Drones operating without direct visual contact with the pilots are used to inspect railway lines, providing a fast and safe overview of the condition of the line and minimising line closures. The drones operate from hangar-based drone garages distributed along the rail network. They send real-time images to the control centre, where the necessary decisions are taken.

The Maritime business domain received orders from the German and Belgian Maritime Rescue and Coordination Centres (MRCC). MRCCs are control centres for maritime emergencies, e.g. vessels in distress, accidents, oil spills and private individuals in difficulty. The German Maritime Search and Rescue Service and the Belgian Maritime Service Agency and Coast Guard have each ordered a flexible modern incident management system as part of the Frequentis MarTRX solution.

The UK has become a new MarTRX customer, enabling the Maritime and Coastguard Agency (MCA) to simplify workflows in the dispatch of navigation information (NAVTEX). In future, the Frequentis DSC (digital selective calling) solution will improve the handling of emergency calls from British ships operating worldwide. This project will connect 130 radio stations along the British coast to the MarTRX control centre.

Orders on hand

Orders on hand amounted to EUR 594.7 million as at 31 December 2023 (including the latest acquisitions), an increase of 13.9% (EUR 72.6 million) compared with end-December 2022 (EUR 522.0 million). The Air Traffic Management segment accounted for around 63% of total orders on hand (December 2022: 63%) and the Public Safety & Transport segment for 37% (December 2022: 37%).

Revenues and operating performance

In 2023, revenues increased by 10.8% (EUR 41.5 million) to EUR 427.5 million (2022: EUR 386.0 million). Taken together, the two acquisitions – the German company FRAFOS and the Norwegian company Frequentis Recording – contributed around EUR 2 million to revenues in 2023. Organic growth was therefore 10.2%.

Revenues in the Air Traffic Management segment grew by 13.8% to EUR 293.3 million. In the Public Safety & Transport segment, revenues increased by 4.8% to EUR 133.8 million. The revenue split between the Air Traffic Management and Public Safety & Transport segments was 69% : 31% in 2023 (2022: 67% : 33%).

Looking at the regional revenue split, in 2023 Europe accounted for 66% (2022: 65%), the Americas for 16% (2022: 16%), Asia for 11% (2022: 12%), Australia/Pacific for 6% (2022: 5%), and Africa for 1% (2022: 2%). Less than 1% (2022: <1%) of revenues were not allocated to a region.

The change in inventories of finished goods and work in progress was EUR -0.5 million in 2023 (2022: EUR <0.1 million). Own work capitalised rose to EUR 4.1 million (2022: EUR 2.6 million), mainly due to voice communication systems produced for leasing.

The other operating income decreased to EUR 8.1 million (2022: EUR 10.5 million). The biggest single items here are grants and subsidies for research and development costs and income from research subsidies.

The operating performance increased by 10.0% to EUR 439.2 million in 2023 (2022: EUR 399.1 million).

Earnings

The cost of materials and purchased services increased by 5.5% to EUR 104.7 million (2022: EUR 99.2 million), which was less than the rise in revenues. Personnel expenses rose 11.8% to EUR 227.9 million (2022: EUR 203.9 million), which was above the rise in revenues. This was attributable to the increase in the headcount, pay rises, which reflected the high inflation rate, and the acquisitions made in 2023.

The other operating expenses increased by 24.1% to EUR 62.4 million (2022: EUR 50.3 million), driven principally by higher travel and advertising expenses, for example for trade shows, the change in project provisions, and increased energy costs. Since the COVID-19 pandemic has subsided, allowing unrestricted travel, and air fares have risen, travel expenses increased by EUR 2.0 million year-on-year to EUR 12.7 million, which was 3.0% of revenues in 2023. In absolute terms, travel expenses were therefore higher than in 2019, before the pandemic, but relative to revenues they were lower than in 2019 (2019: EUR 11.9 million, which was 3.9% of revenues). Frequentis strives to keep travel expenses at around 3-4% of revenues.

EBITDA (earnings before interest, taxes, depreciation, and amortisation) declined to EUR 44.2 million in 2023 (2022: EUR 45.6 million). The EBITDA margin (relative to revenues) was 10.3% in 2023, compared with 11.8% in 2022.

Depreciation and amortisation were almost unchanged at EUR 17.5 million (2022: EUR 17.5 million). No impairment losses were recognised in 2023. In 2022, impairment losses of EUR 3.1 million were recognised due to the impairment of product rights at ATRiCS Advanced Traffic Solutions GmbH and Frequentis Comsoft GmbH.

As a result of all the changes outlined above, EBIT increased to EUR 26.6 million in 2023 (2022: EUR 25.0 million). The EBIT margin (relative to revenues) was 6.2%, compared with 6.5% in 2022.

As a result of the increase in interest rates, financial income rose by EUR 0.7 million to EUR 0.9 million in 2023 (2022: EUR 0.2 million). At the same time, the cost of financing (which also includes interest on leases) increased by EUR 0.7 million to EUR 1.4 million (2022: EUR 0.7 million).

Profit before tax was EUR 26.4 million in 2023 (2022: EUR 24.7 million). Income tax expense was EUR 6.4 million (2022: EUR 5.9 million), giving a tax rate of 24.4% (2022: 23.7%).

The profit for the period increased to EUR 20.0 million in 2023 (2022: EUR 18.9 million). Basic earnings per share were EUR 1.39 in 2023 (2022: EUR 1.41) and diluted earnings per share were EUR 1.38 (2022: EUR 1.41).

Employees

The number of employees increased by 6.5% to an average of 2,217 FTEs in 2023 (2022: 2,081 FTEs). Around 1,100 FTEs, which was around half of the total, were employed in Austria.

Asset and capital structure

Total assets increased by 9.1% to EUR 371.1 million as at end-December 2023 (end-December 2022: EUR 340.3 million). This was partly attributable to an increase in contract assets. The equity ratio was 41.9% (end-December 2022: 43.3%). Equity increased by EUR 8.3 million to EUR 155.6 million (end-December 2022: EUR 147.3 million).

The net cash position (cash and cash equivalents and time deposits less liabilities to banks and other financial liabilities) was EUR 84.3 million as at end-December 2023, which was below the net cash position of EUR 91.0 million recorded at the end of December 2022.

Non-current assets amounted to EUR 94.0 million at the end of December 2023 (end-December 2022: EUR 80.4 million). The three largest items here were property, plant and equipment, which totalled EUR 55.9 million (end-December 2022: EUR 53.3 million), intangible assets, which amounted to EUR 17.5 million (end-December 2022: EUR 14.5 million), and goodwill, which was EUR 11.4 million (end-December 2022: EUR 5.8 million).

Current assets totalled EUR 277.1 million at the end of December 2023 (end-December 2022: EUR 259.8 million). The most important item here is cash and cash equivalents, including time deposits, which amounted to EUR 84.7 million (end-December 2022: EUR 91.4 million), followed by trade accounts receivable totalling EUR 81.0 million (end-December 2022: EUR 77.0 million), contract assets, which amounted to EUR 61.3 million (end-December 2022: EUR 50.5 million), and inventories, which totalled EUR 26.6 million (end-December 2022: EUR 21.7 million). The increase in inventories was mainly due to increased stocking of components to ensure an adequate safety net to meet long-standing delivery and maintenance obligations despite the withdrawal of products by producers and supply bottlenecks.

As at end-December 2023, more than two-thirds of total cash and cash equivalents and time deposits were deposited with eleven system-relevant major banks in Austria and Germany. Less than one-third was deposited with approximately 25 other banks in Europe, Australia, Asia, and the Americas.

On the liabilities side, the main item was equity of EUR 155.6 million as at end-December 2023 (end-December 2022: EUR 147.3 million). The second largest item comprised current liabilities, which amounted to EUR 142.4 million as at end-December 2023 (end-December 2022: EUR 131.0 million). Contract liabilities accounted for EUR 72.1 million of this amount (end-December 2022: EUR 68.0 million).

Non-current liabilities (third-largest item on the liabilities side) totalled EUR 73.0 million (end-December 2022: EUR 61.9 million). The biggest item here comprised non-current lease liabilities, which totalled EUR 29.2 million (end-December 2022: EUR 30.8 million).

Cash flow

The cash flow from operations increased to EUR 46.8 million in 2023 (2022: EUR 43.6 million).

The cash flow from operating activities increased to EUR 25.7 million in 2023 (2022: EUR 14.2 million), driven principally by the positive development of the cash flow from operations and the change in other liabilities and contract liabilities. By contrast, it was held back by higher income tax payments in many countries.

The cash outflow for investing activities was EUR 18.1 million in 2023, compared with an outflow of EUR 20.1 million in 2022. This includes the cash outflows for the acquisition of the German company FRAFOS and the Norwegian company Frequentis Recording. Capital expenditures (cash outflows for the purchase of intangible assets, property, plant and equipment) were EUR 11.7 million, which was higher than in 2022 (EUR 10.1 million). The cash outflows in 2022 and 2023 were influenced by own work capitalised, mainly in connection with voice communication systems produced in these two years.

The cash flow from financing activities improved to EUR -13.4 million in 2023 (2022: EUR -16.5 million), principally as a result of borrowing and other financing. This was offset to some extent by repayment of loans and other financing.

The total cash flow in 2023 was EUR -6.6 million (2022: EUR 22.4 million). Cash and cash equivalents, excluding time deposits, amounted to EUR 74.2 million as at end-December 2023 (end-December 2022: EUR 81.4 million).

Business relations with related parties

For details see [➤ Consolidated financial statements as at 31 December 2023, note 36.](#)

Segment performance

Air Traffic Management / ATM

The Air Traffic Management (ATM) segment comprises the ATM Civil business domain (which includes AIM / Aeronautical Information Management) and the ATM Defence business domain. This segment focuses on civil and military air traffic control organisations and therefore generally on one to two customers per country. It is estimated that the market entry barriers are relatively high.

The business domains' products are similar and are based on the same product platform. In the Defence business domain, there is also demand for additional encryption solutions. The safety and quality management requirements are the same: the international regulations for standardisation of air traffic issued by the International Civil Aviation Organization (ICAO) apply. Moreover, the infrastructure to be installed for customers (radar, radio transmission, networks) is similar.

Frequentis' ATM portfolio for the defence sector comprises communication and information systems for air defence and military air traffic control, systems for networked operational management and tactical networks, management and information systems, including systems for integrated use by different authorities, and encrypted, interoperable communication systems for mission-critical applications.

Revenues in the Air Traffic Management segment increased by 13.8% to EUR 293.3 million in 2023 (2022: EUR 257.8 million). EBIT was EUR 10.1 million (2022: EUR 10.2 million).

Highlights from the operating business

This segment recorded key milestones and acceptance of voice communication systems for the British, French, and Korean air traffic control organisations. The latest release of the X10 voice communication system came into service at Montreal Airport in Canada. Using its agile state-of-the-art service-oriented architecture, the X10 adds future operational benefits through seamless integration with other systems.

In the area of drone management, Estonia's air navigation service provider has taken the first steps – together with Frequentis – towards automated, digital implementation of drones in air traffic. Frequentis' work in the field of drone management is also honoured by the market: at the 2023 Airspace World trade show in Geneva, Frequentis, the Norwegian air navigation service provider Avinor, and the Norwegian air ambulance service won the Overall Excellence Air Traffic Management Award for demonstrating the safe operation of drones and the air ambulance service.

In Austria, flying drones has been even simpler and safer since the end of October 2023. Together with Frequentis, Austro Control has developed a traffic management system for the safe integration of drones into Austrian airspace.

Frequentis is leading an artificial intelligence research initiative to enhance the safety and efficiency of remote digital towers. The Austrian research initiative Take Off provides funding for this collaboration between Frequentis, the Austrian Institute of Technology, and Graz University.

Public Safety & Transport / PST

The Public Safety and Transport segment comprises the Public Safety, Public Transport, and Maritime business domains. Its customers are public authorities or related organisations with monitoring and control functions.

The Public Safety business domain's customers are the police, fire, and rescue services. Police organisations also require additional encryption solutions. Alongside conventional rail operators, the Public Transport business domain's customers include local public transport providers. The Maritime business domain focuses on coastguards and port authorities.

The business domains' products are similar and are based on the same product platform. Moreover, the infrastructure to be installed for customers (phones, radio transmission, networks) is similar. Despite several international standardisation efforts, different national and regional requirements and regulations still apply.

Revenues in the Public Safety & Transport segment increased by 4.8% to EUR 133.8 million in 2023 (2022: EUR 127.7 million). EBIT rose to EUR 16.7 million (2022: EUR 14.9 million).

Highlights from the operating business

A highlight in the Public Safety business domain was the full completion of the rollout of the 3020 LifeX multimedia communication solution in Bavaria, Germany. Now the entire police force in Bavaria uses 3020 LifeX platforms.

3020 LifeX was successfully taken into service in the Saarland region of Germany when the police control centre was switched to this platform. It should be noted that Frequentis Germany executed this project in just six months from placement of the order by ZRF, a joint association of the fire and emergency rescue services in this region.

Within the framework of the Ambulance Radio Programme, the first systems were replaced at some of the eleven control centres operated by the (regional) Ambulance Trusts in England, Scotland, and Wales.

Frequentis expert Charlotte Rösener was appointed President of the Public Safety Communication Europe (PSCE) Forum in 2023. She became chair of the Industry Committee and one of four board members in 2021. The PSCE Forum is a non-profit organisation in the field of communication technologies for public authorities and emergency services (police, fire, and rescue services).

The Public Transport domain completed key milestones for customers in Europe and Australia. These will increase safety further in the future and pave the way to better address specific issues such as security requirements. One focus of the RailDays event organised for customers in Vienna in the reporting period was joint work on the systems roadmap for railways.

The Maritime domain brought systems into operation in Australia and Egypt and important progress and customer acceptances were registered in projects for the Netherlands and Norway.

Research & development

The greatest challenges for customers operating safety-critical services are currently rising cost pressure and continual changes in the operating environment, most recently caused, in part, by the effects of the pandemic. Users need more flexible systems and software solutions to ensure they continue to meet the demanding safety requirements and can adapt operating resources and operational locations easily to meet current needs. Therefore, flexible means of communication and integrated control room solutions are required. The migration of data and voice communication to joint IP networks creates the technical preconditions for greater flexibility, which is needed, for example, for remote tasks. At the same time, cybersecurity is becoming more and more important as a result of increased networking.

As a recognised innovation leader in the markets it addresses, Frequentis responds to this by providing IP-based systems. In the next phase, the networks will become the centre of communications solutions. Traditional voice communication systems are being extended by networked voice and data communication systems. Close interaction with customers, with most of whom Frequentis has worked in partnership for many years or even decades, allows early identification and a timely response to technological developments.

Innovations are an important element in Frequentis' corporate strategy. All related activities are managed by New Business Development. The present focus is on the ongoing development of the digital (remote) tower technology, drone management, and the use of 5G/LTE for safety-critical applications. Another focal area is the development and commercialisation of new business models such as software as a service (SaaS) and cloud solutions.

Future aspects include examining artificial intelligence or blockchain technology for possible use in safety-critical applications. Frequentis' involvement in a range of national and EU-funded projects is also focused on such issues in the safety-critical environment. Wherever possible, Frequentis' innovations are patent-protected.

Expenses for in-house research and development work (i.e. work not ordered by customers) amounted to EUR 25.2 million in 2023 (2022: EUR 26.8 million). That was around 6% of revenues in 2023 (2022: around 7% of revenues).

Non-financial information

Frequentis AG publishes a separate consolidated non-financial report, which meets the statutory requirements of Sections 243b and 267a of the Austrian Commercial Code (UGB).

Consolidated corporate governance report

The consolidated corporate governance report is available at www.frequentis.com/ir > Corporate Governance.

Opportunity and risk management

Frequentis has implemented an active risk management system throughout the Group. The fundamental aim is to identify opportunities and risks as soon as possible and take suitable measures to maintain profitability and secure the continued existence of the Group. Variable capacity utilisation scenarios are a central risk factor, which the company addresses through extensive scenario management. Together with the risk awareness of the staff, this allows timely recognition and Group-wide counteraction, even in business situations that develop in an unforeseen manner.

The Frequentis Group therefore regularly undertakes an extensive internal evaluation of all relevant risks and opportunities. These are compiled in a Group-wide risk report, which is discussed by an extended management circle. As well as exploiting opportunities, Frequentis enters into risks with a view to enhancing the value of the company. To ensure early identification and proactive management of risks, the Frequentis Group has a soundly based Risk Management Policy, a Group-wide risk management system, an extensive internal control system (ICS), and an Internal Audit department. Breaches of compliance can constitute a considerable risk for any company.

The Risk Management Policy is based on the internationally recognised ISO 31000 standard and forms the backbone of the efforts to systematically identify, evaluate, and manage risks. Through this established process, Frequentis ensures a holistic view of the opportunities and risks. The measures taken to exploit opportunities and mitigate risks are discussed in detail by an extended management circle at regular intervals. Specific action points are identified and corresponding decisions are taken to ensure that Frequentis can respond agilely to challenges and, at the same time, make full use of the opportunities that arise. As well as safeguarding the Frequentis Group's earnings capability, this proactive approach strengthens its position in a changing business world. The Director of Group Security & Risk Management is responsible for this process.

To simplify the internal and external communication channels for reporting any issues, Frequentis introduced a whistleblower system at Group level at the end of 2021. This is available both via the company's website at www.frequentis.com/en/whistleblowing and via the intranet. This meets the requirements of EU Directive 2019/1937 on the protection of persons who report breaches of Union law.

Project management as an operational mainstay

Risk management is essential in projects, which form Frequentis' core business and are the mainstay of its operations. As part of effective and professional project management, an in-depth risk analysis examines the entire project life cycle. Risks are identified, tracked, mitigated, and eliminated to ensure clear management of risks and results.

The entire project portfolio is managed by a project management board that meets periodically. This board reviews projects and allocates them to the relevant business types. It also drives forward the continuous improvement of project methods and project management processes.

In addition, projects are evaluated several times a year by an extended management circle. All key projects are presented, risk assessments and deviations are discussed, and the action to be taken is agreed. Performance of the projects, invoicing, and receipt of payments are monitored continuously. These project evaluations are supplemented by periodic status meetings in the individual units, which monitor operating performance and marginal income with a view to the Group's profit.

Evaluation of risk management

As part of the audit of the financial statements, in March 2024, BDO Assurance GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft confirmed the functioning and appropriateness of Frequentis' risk management system in accordance with C rule no. 83 of the Austrian Code of Corporate Governance.

Overview of risks

If any of the risks outlined in this section materialise, this could have an adverse effect on the business, financial condition, and result of operations of the Frequentis Group.



To obtain a full overview of the risks within the Frequentis Group, they are classified by impact. The division into project, finance, legal & compliance, operational & HR (human resources), security, strategy, and ESG (environmental, social, governance) risks creates a precise structure that allows a full overview of the wide-ranging opportunities and risks of Frequentis' business activities. The categories are outlined below to provide an extensive insight into the risk management strategies and activities.

Project-related risks

Unpredictabilities, which are characteristic of the tender project business, and seasonal and annual fluctuations in the order situation.

An important part of the Frequentis Group's business is acquiring orders (often through lengthy tender processes) to provide products and services. Competition is intense, and the tender procedure is typically protracted and extensive and necessitates considerable personnel and financial resources. Projects by public and semi-public organisations depend on regulatory decisions, budget considerations, and internal approval and release procedures. If Frequentis does not succeed in winning the tender process, all funds and resources allocated to such projects are frustrated. Delays in the tender process and during project execution may have detrimental impacts on the Group's order intake and operating performance. The larger a project is, the more significant the impact. The order intake, operational performance, and earnings of the Frequentis Group are typically subject to considerable seasonal fluctuations. Usually, the Group generates most of its order intake, earnings, and operating performance in the fourth quarter of any given financial year and its financial results in the first half of the financial year are usually negative. Moreover, in most cases, payment depends on the achievement of milestones and the successful finalisation of such projects.

Fluctuations in earnings due to the impact of major projects.

Frequentis' revenues in any period may fluctuate significantly due to the specific payment dates for major projects. Such contracts cause a significant revenue contribution in one year, compared to other years, in which no such major contracts were obtained.

Cost overruns

Changes in costs and production in projects based on fixed-price contracts might influence the financial result of the relevant project. Expenses necessary to complete projects (in particular, if a project involves significant R&D or engineering work) could be underestimated. This may render certain projects unprofitable or even loss-making.

Further risks in this area:

Uncertain, delayed, or deferred orders.

Finance-related risks

Legitimate/illegitimate utilisation or unavailability of bank guarantees.

Frequentis regularly provides bank guarantees (bid bonds, down payment bonds, performance bonds, warranty bonds) to customers as surety for their contractual claims. Legitimate or illegitimate utilisation of these bank guarantees could result in liquidity problems. Similarly, tender invitations for goods and services to be delivered to customers in countries where Frequentis' domestic relationship banks do not have regular business connections could make it difficult to identify appropriate banks for the issuance of letters of credit in time or at all. If no corresponding bank could be found, Frequentis would not be able to take part in the tender process. Frequentis AG has provided numerous comfort letters on behalf of its subsidiaries. This means that Frequentis AG assumes the risk of contract performance by these subsidiaries.

Non-performance of payment obligations by customers.

Non-performance of payment obligations by a customer, particularly in major projects, may be caused by a customer getting into financial difficulty or becoming insolvent, delays in the performance of a project, tension in the collaboration with the customer, or other reasons. Payment delays by public or semi-public entities could also be caused by a delay in budget negotiations or by political uncertainties.

Further risks in this area:

- Inadequate cash flows from operating activities to finance liquidity and net working capital requirements.
- Rising cost pressure triggered, in particular, by competitors in low-wage countries.
- Fluctuation of raw material and energy prices and labour costs.
- Fluctuations in exchange rates and rising interest rates.
- High inflation rates or inflation rates above the long-term average.

Legal & compliance risks**Legal risks relating to public tender contracts.**

An important aspect of Frequentis' business is the delivery of products and rendering of services that are subject to public tender procedures and therefore exposed to several specific risks. It should be borne in mind that:

- Competition in tender processes is normally very intensive;
- Such processes require considerable human and financial resources over a long period;
- Public tenders may have very disadvantageous contractual terms, which often cannot be negotiated individually;
- Public and semi-public organisations (which dominate Frequentis' customer base) may give preferential treatment to suppliers from certain other countries rather than Frequentis due to protectionism or political influence;
- An order awarded to Frequentis could be challenged by unsuccessful competitors.

Statutory provisions that define a proportion of domestic content.

Some countries, e.g. the USA (Buy American Act) and Australia (Australian Industry Capability Program), prescribe minimum domestic content directly or indirectly by statute. In such situations, Frequentis must purchase local content from local suppliers, or must make acquisitions or direct investments in the relevant market, regardless of the price level and the capacity situation within the Frequentis Group and any resulting underemployed capacity.

Faulty performance under Frequentis' contracts (including when it is acting as a sub-contractor).

This could include complete non-fulfilment, incomplete fulfilment or bad fulfilment, in terms of quality, time or budget.

Faulty performance by subcontractors.

When Frequentis acts as the main contractor and/or system integrator, which occurs more and more often, it also assumes responsibility for third-party suppliers, which entails additional risks. If a subcontractor provides certain components, which the main contractor has to integrate into an overall solution, the main contractor faces both technological and financial integration risks. In certain circumstances, it may not be possible to complete the subcontract on terms that are essentially equal to those set out in the main contract with the customer. If a subcontractor does not meet its contractual performance obligations, the Frequentis Group might face claims for damages or penalties or be compelled to re-assign the outstanding performance to a third party or to provide the remaining performance itself.

Further risks in this area:

- Damage to customers' assets during on-site work.
- Business activities could be adversely affected by changes in the legal and political framework or the application or interpretation of laws, especially as regards regulatory, commercial, financial, and tax law.
- Failure to successfully protect technology and proprietary know-how or to defend intellectual property.
- Access to bank deposits or other financial assets as a result of legal regulations or the illiquidity of banks.
- Non-negotiable contract terms in public tender processes and, in particular, unlimited liability clauses in public-sector contracts.
- Embargoes and other trade restrictions.
- Compliance-related risks.

Operational & human resources risks

Loss of established customers.

Installed base business is the provision of services, updates, upgrades, or enhancements related to products and systems delivered to, and operated by, existing customers of the Frequentis Group. The Frequentis Group believes that it has a competitive advantage in such follow-up projects in relation to competitors who are not familiar with the Frequentis products already operated by such customers. Since customers often rely on the Group's products and services for a long period of time, installed base business sales offer a relatively stable source of income for the Group. A loss of existing customers therefore has a far-reaching effect.

Long-term commitments.

For certain of its projects, Frequentis is obliged to replace system parts or to deliver spare parts for up to 15 years or longer and needs to keep the corresponding products and know-how available. Such commitments could lead to unforeseen increases in storage costs, which tie up the Frequentis Group's funds, or could cause complications if suppliers fail to deliver such components in the required quantity and quality or discontinue the supply of such components. In this situation it could be expensive or even impossible for Frequentis to obtain such components from other suppliers or to produce them itself.

Outbreak of a global pandemic.

The outbreak of pandemics like COVID-19 could have a negative impact on economic development in the markets in which Frequentis operates and adversely affect the company's business performance. Among other things, restrictions on freedom to travel, immigration bans, quarantine requirements, reductions in flight schedules and the associated reduction in the number of flights, and restrictions on the production of goods and services could have a detrimental effect on the development of the markets served by Frequentis.

The points listed could result, for example, in delays in the acceptance of projects on site or in local acceptance by customers or make such acceptance impossible for an indefinite period. There could also be logistics and supply problems, resulting in supply chain bottlenecks. Customers' investment budgets could be cut back, and customers could be less willing to take decisions as a result of the uncertainty.

If Frequentis fails to meet quantitative requirements, its know-how might not be sufficient to win new customers or retain existing customers.

Customers' tenders often have quantitative requirements for their projects, e.g. references from previous customers and projects, a minimum annual turnover and/or revenue, or quantitative requirements relating to the Group's employees, e.g. a minimum number of system experts located in the customer's country.

Further risks in this area:

- Malfunctioning of products and product shortcomings.
- Loss of key personnel and failure to attract qualified employees.
- Loss of suppliers or interruptions or bottlenecks in the supply of the Group's services, software, component parts, or raw materials.
- Failure to deal successfully with the challenges of (organic) growth, and excess capacities or capacity shortages in Frequentis' organisational units.

Security-related risks**Cyberattacks**

Given that Frequentis' business is heavily dependent on IT security, cyberattacks could pose a substantial risk to its business, in particular because the technical solutions offered by Frequentis perform safety-critical tasks. If a customer's infrastructure is affected by a cyberattack, and if the vulnerability of the infrastructure is caused by or attributed to a product of the Frequentis Group, this could cause claims for damages, loss of customers, and negatively affect the perception of the reliability of the products of the Frequentis Group.

Changes in technological standards.

The development of products could fail or take more time than permitted by technological progress; development costs for products with insufficient demand could lead to stranded investments; the implementation of change programmes could fail or increase the time and cost involved.

Strategy-related risks**Dependence on political and economic conditions.**

Frequentis' ability to secure contracts and their content, amount, and size depends, among other things, on the volume of air, ship, and rail traffic, the relative importance attributed to safety awareness by the public, and the funds available for the procurement of control centre solutions, systems, and products as well as for maintenance, enhancements, and upgrading of existing solutions, systems, and products.

Exercise of political influence and protectionism.

Public and semi-public organisations dominate Frequentis' customer structure. Such customers may, for various reasons, prefer suppliers from certain countries over Frequentis.

Progressive customer concentration.

A trend towards amalgamations within the public sector and privatisations of public organisations in some of the Frequentis Group's business areas can lead to delays in investment and procurement decisions or a smaller number of customers, each of which has greater market and bargaining power. If there are few or only one potential customer per country, the Frequentis Group's dependency on such customers increases.

Defending market positions against competition.

Frequentis is active in highly competitive markets where a few large international companies compete against a number of smaller businesses. Some of Frequentis' competitors have higher market capitalisation and greater financial power, so they are in a better position to adapt to changes in the market, finance new technologies, and bypass financial bottlenecks.

Growth through acquisitions.

Acquisitions are associated with a general entrepreneurial risk. Frequentis might not be able to identify and purchase suitable acquisition targets and it might not have sufficient funds for a potential acquisition. Successful integration of the acquired business might be difficult or impossible, the anticipated goals and synergies might be unachievable, and the Frequentis Group could face new risks not evaluated in advance.

ESG-related risks

The opportunities and risks relating to ESG (environmental, social and governance) aspects are presented in the *risk impact analysis* section in the separate [↗](#) consolidated non-financial report.

Internal control system (ICS) for the accounting process

Corporate Accounting comprises those activities that are necessary to prepare annual financial statements and consolidated financial statements in compliance with the law and IFRS.

Structure of accounting

The accounting function in the Frequentis Group comprises the accounting departments at local companies and the Corporate Accounting department in Vienna. Book-keeping for some subsidiaries is carried out directly at the Group's headquarters in Vienna. The local companies draw up financial statements in accordance with local law and then prepare financial statements in accordance with the IFRS. Both sets of financial statements are submitted to Corporate Accounting in Vienna.

Book-keeping for most companies, especially the large companies, is performed using a uniform SAP system. For some local companies, which use other ERP systems, Corporate Accounting in Vienna uploads the accounts to the SAP system. Consolidation is performed by Corporate Accounting.

Consolidation

The IFRS financial statements are drawn up in accordance with the IFRS accounting and valuation policies. The staff responsible for local accounting apply the IFRS. The IFRS of relevance for the consolidated financial statements are outlined in the corporate accounting manual, which is made available to the subsidiaries. If necessary, supplementary information on Group-wide reporting requirements is distributed to the subsidiaries before each annual closing process. Local financial reporting data are checked manually by Corporate Accounting (mainly plausibility checks) and also undergo automatic, tool-based checking routines. During this process, Accounting works closely with other departments, especially Controlling (e.g. in respect of target/actual comparisons and segment reporting).

The overall consolidation process includes checking the consistency of the data transmitted and plausibilisation of the financial statements as a whole.

To ensure correct and timely completion of the annual report by the publication date, deadlines are set for both the half-year and the annual financial statements. The entire accounting function is notified of these in good time. In addition to the annual report at the end of each financial year, a half-year interim report is published in accordance with IAS 34.

Controls

The entire accounting function reports to the CFO. Quarterly reports to the Executive Board and the Supervisory Board contain information on order intake, the development of revenue, the income statement, and opportunities and risks. This ensures ongoing oversight of the internal control system. Existing and potential risks are constantly monitored by several bodies. This is based on uniform risk guidelines. The management of the local companies is responsible for implementing these guidelines and ensuring they are observed.

In the Frequentis Group, the Internal Audit department is a staff department reporting to the CFO. The annual audit schedule is determined by the Supervisory Board's Audit Committee on the basis of a proposal by the Internal Audit department. Focal areas are examining the effectiveness of the internal control system, compliance with the applicable Group-wide guidelines at individual companies, and special audits triggered by specific events. Depending on the circumstances, audits are conducted locally or at headquarters. The results of audits are presented once a year to the Audit Committee and twice a year to the Executive Board.

Information pursuant to Section 243a (1) UGB

1. The share capital of Frequentis AG was EUR 13,280,000.00 as at 31 December 2023 and was divided into 13,279,999 no-par-value bearer shares, all of which are equal in all respects, and one registered share with restricted transferability ("share no. 1"). The holder of share no. 1, Johannes Bardach, is authorised by article 5.1.2 of the articles of association to appoint one third of the members of the Supervisory Board (i.e. one third of the maximum number of shareholder representatives set out in article 5.1.1 of the articles of association).

As at 31 December 2023, the company held 18,485 treasury shares, which was 0.1392% of the share capital (31 December 2022: 8,910 treasury shares, which was 0.0671% of the share capital). Under Section 65 (5) of the Austrian Companies Act (AktG), treasury shares do not confer any rights, especially voting rights, on the company.

2. Apart from the following exceptions, there are no restrictions on voting rights or the transfer of shares other than the general provisions of company law: Under article 3.3 of the articles of association, registered share no. 1 can only be transferred with company's consent (restricted transferability). In terms of voting rights, share no. 1 has the same rights as the bearer shares. An agreement on the election of a person nominated by B&C Holding Österreich GmbH as a member of the Supervisory Board of Frequentis AG has been concluded between Frequentis Group Holding GmbH and B&C Holding Österreich GmbH.

3. As at 31 December 2023, Frequentis Group Holding GmbH had a direct stake of over 50.0% in Frequentis AG and was thus the direct majority shareholder of Frequentis AG. B&C Holding Österreich GmbH held a stake of over 10.0% in Frequentis AG as at 31 December 2023.

4. As at 31 December 2023, share no. 1 was held by Johannes Bardach. This share has the rights set out in subsection 1 above.

5. Employees who hold shares may exercise their voting rights at the General Meeting.

6. The Executive Board comprises one, two, three, or four people. The members of the Executive Board are appointed by the Supervisory Board for a maximum of five years. Reappointment is permitted.

The articles of association contain the following ruling on the appointment and dismissal of members of the Supervisory Board: The Supervisory Board comprises at least three and at most six members elected by the General Meeting or delegated by the shareholders (shareholder representatives) and a corresponding number of employee representatives delegated in accordance with Section 110 of the Austrian Labour Constitution Act (Arbeitsverfassungsgesetz).

The shareholder of registered share no. 1 is authorised to appoint one third of the members of the Supervisory Board (i.e. one third of the maximum number of shareholder representatives set out in article 5.1.1 of the articles of association).

The Supervisory Board members elected by the General Meeting shall, unless they are elected for a shorter term of office, be elected for the period until the end of the General Meeting that resolves on ratification of their actions for the fourth financial year after their election. The financial year in which they are elected is not included in this calculation. Re-election of a Supervisory Board member is permitted.

The appointment of an elected Supervisory Board member can be revoked by the General Meeting before the end of the term of office. The resolution requires a simple majority of the valid votes cast. Abstentions do not count as votes cast.

The members of the Supervisory Board delegated by shareholders are members of the Supervisory Board for an unlimited period. The parties who delegated them may revoke their appointment at any time and replace them by others. Otherwise, the appointment of delegated members of the Supervisory Board may only be terminated in accordance with Section 88 (4), last sentence, of the Austrian Companies Act (AktG). A member whose appointment is terminated in this way may be replaced by the parties who delegated them.

Any member of the Supervisory Board can resign their seat subject to four weeks' notice, even without good cause, by submitting a written letter of resignation to the chairperson of the Supervisory Board. The chairperson's resignation shall be submitted to his deputy. Re-election of members who leave the Supervisory Board is permitted.

If elected members resign from the Supervisory Board before the end of their term of office, replacements need not be elected until the next Annual General Meeting. However, a replacement must be elected without delay by an Extraordinary General Meeting if the number of shareholder representatives drops below three. Replacements are elected for the remaining term of office of the member who resigned.

The articles of association contain the following ruling on amendments to the articles of association: The Supervisory Board is authorised to make amendments to the articles of association that only affect the wording. Furthermore, the Supervisory Board is authorised to make amendments to the articles of association that result exclusively from the issuance of new shares out of the authorised and/or conditional capital set out in section 3 of these articles of association or from other capital measures.

7. By resolution of the General Meeting of 1 June 2023, the Executive Board is authorised, subject to the approval of the Supervisory Board, to increase the company's share capital up to 31 May 2028 by up to EUR 6,640,000 (six million six hundred and forty thousand) by issuing up to 6,640,000 (six million six hundred and forty thousand) new no-par-value bearer shares in return for cash or contributions in kind, in one or more tranches, or through a direct subscription offer following acceptance by one or more banks in accordance with Section 153 (6) of the Austrian Companies Act (AktG). The Executive Board is authorised, subject to the approval of the Supervisory Board, to fully or partially exclude shareholders' subscription rights and, subject to the approval of the Supervisory Board, to define further details of the issue conditions (especially the issue price, type of contribution in kind, rights of the shares, exclusion of subscription rights, etc.) (authorised capital). The Supervisory Board is authorised to adopt amendments to the articles of association resulting from the issuance of shares out of the authorised capital.

The Executive Board is authorised by the resolution adopted by the Annual General Meeting of 2 June 2022, pursuant to Section 65 (1) No. 4 and No. 8, to purchase, via the stock exchange or off-market, bearer shares in the company in an amount of up to 10% of the company's share capital during a period of 30 months from the date of the resolution by the General Meeting, whereby the minimum consideration per share may not be more than 20% below and the maximum consideration per share may not be more than 10% above the average closing price on the stock exchange over the preceding ten trading days. Trading in own shares is excluded from the purpose of purchase. The authorisation may be exercised in full or in part or in several tranches and for one or more purposes by the company, by a subsidiary (Section 189a No. 7 of the Austrian Commercial Code, UGB) or by a third party for the account of the company or of a subsidiary (Section 189a No. 7 UGB). If the shares are purchased off-market, the purchase may also be effected under exclusion of the shareholders' general right of sale, even for certain shareholders or one individual shareholder.

Furthermore, the Executive Board is authorised to reduce the share capital by cancelling shares in the company without a further resolution of the General Meeting. The Supervisory Board is authorised to adopt amendments to the articles of association resulting from the cancellation of shares.

The resolution adopted at the General Meeting on 20 September 2019 authorises the Executive Board, pursuant to Section 65 (1b) AktG, for a period of five years from the date of the resolution, therefore up to and including 19 September 2024, with the consent of the Supervisory Board but without a further resolution by the General Meeting, to sell or use treasury shares, also in a manner other than by sale on the stock exchange or by means of a public offer, in particular to sell or use treasury shares

a) to grant treasury shares to employees, senior managers, and/or members of the Executive Board or the managing boards of its affiliates, including for purposes of share transfer programmes, in particular stock options, long-term incentive plans, and other stock ownership plans,
b) to deliver treasury shares under convertible bonds issued by Frequentis AG,
c) as consideration for the acquisition of entities, business operations, parts of business operations or shares in one or several domestic or foreign companies, and
d) for any other legally permissible purpose,
and to exclude the subscription rights of shareholders. This authorisation may be exercised in full or in part or in several tranches and for several purposes.

8. Some financing agreements and customer contracts contain customary agreements on a change of control in the event of a takeover within the meaning of Section 243a (1) No. 8 UGB.

9. There are no compensation agreements within the meaning of Section 243a (1) No. 9 UGB.

Outlook

The goal of increasing revenues and order intake was achieved in 2023. Revenues rose 10.8% to EUR 427.5 million and therefore exceeded the EUR 400 million threshold for the first time. Order intake increased by 24.7% to EUR 504.8 million and therefore exceeded the EUR 500 million threshold for the first time. EBIT was EUR 26.6 million and the EBIT margin was 6.2%

This highlights the robustness of Frequentis' business model. The products supplied by Frequentis are part of the safety-critical infrastructure, in other words, the essential infrastructure of the relevant countries. This infrastructure always has to be available and ready for operation – irrespective of the number of flights/flight movements or how many times the police, fire service, and emergency rescue services are deployed.

Acquisitions

- Acquisition to strengthen expertise in cybersecurity: In April 2023, Frequentis acquired a 76.67% interest in FRAFOS GmbH, which is based in Berlin, Germany. FRAFOS delivers key security components for Frequentis' communication solutions for all safety-critical sectors.
- Acquisition on the recorder market: In July 2023, Frequentis acquired 100% of the Norwegian software company GuardREC ATC AS, which has since been renamed Frequentis Recording AS as part of the integration process. This acquisition increases recording competence in all business areas.

Frequentis' strategy includes searching proactively for attractive M&A opportunities to extend its product portfolio or gain access to new markets.

Long-term vision

Frequentis' long-term vision is to be the global number one in solutions for control centres in the safety-critical sector. As a systems integrator that integrates its own software and, in some cases, its own hardware into customers' existing software and hardware landscapes, Frequentis sees its long-term profitability in project business at the level of established IT systems integrators.

The transformation to a software-centric business is under way but, given the customer structure, it will take several years or even longer in some markets. Research and development is aligned to this transformation. For example, a very high proportion of customers in the Public Safety & Transport segment have very low demand for hardware; Frequentis' offering for this customer group comprises project management, training, software, project services, and maintenance contracts.

Forecast for 2024

The uncertainties remain and have increased in some respects:

- the war in Ukraine is entering its third year,
- the war between Israel and Hamas is causing further tension,
- in Austria, in particular, inflation is still far from the average of less than 2% seen in the euro zone since the start of the millennium,
- the major economic areas such as the USA and the euro zone will probably achieve growth of just 2.1% and 0.9%, respectively, in 2024 (IMF forecast January 2024).

The outbreak of even limited conflicts can rapidly cause distortion of the global IT hardware market. In the project business, Frequentis has always had to address extensive challenges and dynamic changes in external influences and adapts constantly to the relevant conditions. The wide range of uncertainties makes forecasting difficult at present.

It is not possible to make a reliable estimate of exactly how these factors and inflation will affect costs, e.g. travel expenses, higher salaries, delays in passing on inflation-driven price rises to customers, and potential supply chain bottlenecks and delivery delays.

Expenses for company-funded research & development amounted to EUR 25.2 million in 2023 and will be higher in 2024. Capital expenditure (capex) will be around EUR 12 million.

Depending on the aspects outlined above, Frequentis has the following targets for 2024 compared with 2023:

- Increase revenues
- Increase order intake
- EBIT margin of around 6%.

Vienna, 11 March 2024

Consolidated Financial Statements as at 31 December 2023

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Consolidated income statement

	Note	2023 EUR thousand	2022 EUR thousand
Revenues	(3) (4)	427,487	385,970
Change in inventories of finished goods and work in progress	(3)	-454	22
Own work capitalised	(3) (5)	4,082	2,574
Other operating income	(3) (6)	8,055	10,514
Profit from business combinations	(1)	3	0
Total income (operating performance)		439,173	399,080
Cost of materials and purchased services	(7)	-104,714	-99,250
Personnel expenses	(8)	-227,854	-203,872
Other operating expenses	(9)	-62,431	-50,326
Earnings before interest, taxes, depreciation, amortisation, and impairment losses (EBITDA)		44,174	45,632
Depreciation of property, plant and equipment and amortisation of intangible assets	(10)	-17,527	-17,535
Impairment losses	(3) (17)	0	-3,106
Earnings before interest and taxes (EBIT)	(3)	26,647	24,991
Financial income	(11)	946	209
Financial expenses	(12)	-1,442	-738
Earnings from investments accounted for at equity	(18)	268	275
Profit/loss before tax		26,419	24,737
Income taxes	(13)	-6,439	-5,859
Profit/loss for the period		19,980	18,878
Profit/loss attributable to:			
Equity holders of the company		18,416	18,723
Non-controlling interests	(28)	1,564	155
		19,980	18,878
Basic earnings per share	(15)	1.39	1.41
Diluted earnings per share	(15)	1.38	1.41

Consolidated statement of comprehensive income

	Note	2023 EUR thousand	2022 EUR thousand
Profit/loss for the period		19,980	18,878
Items that may be reclassified to the income statement in subsequent periods			
Foreign currency translation	(26)	-484	284
Measurement of cash flow hedges	(26) (34)	164	297
Income taxes	(26)	-39	-76
Items that may not be reclassified to the income statement			
Remeasurement of post-employment benefits	(26) (29)	-1,359	4,024
Income taxes	(26)	322	-1,176
Other comprehensive income, net of tax		-1,396	3,353
Total comprehensive income		18,584	22,232
Total comprehensive income attributable to:			
Equity holders of the company		17,057	21,963
Non-controlling interests		1,527	269
		18,584	22,232

Consolidated statement of financial position

ASSETS	Note	31 Dec. 2023 EUR thousand	31 Dec. 2022 EUR thousand
Non-current assets			
Property, plant and equipment	(15)	55,888	53,298
Intangible assets	(16)	17,514	14,501
Goodwill	(17)	11,351	5,834
Investments accounted for at equity	(18)	2,903	2,097
Advance payments for non-current assets		0	35
Other non-current financial assets	(23)	696	885
Deferred tax assets	(13)	5,617	3,785
		93,969	80,435
Current assets			
Inventories	(19)	26,628	21,726
Trade accounts receivable	(20)	81,029	76,990
Contract assets	(21)	61,272	50,475
Contract costs	(22)	2,394	4,024
Other current financial assets	(23)	3,257	2,759
Other current non-financial assets	(23)	15,202	11,360
Income tax receivables		2,641	1,126
Time deposits		10,500	10,000
Cash and cash equivalents	(24)	74,180	81,380
		277,103	259,840
Total assets		371,072	340,275

LIABILITIES AND EQUITY	Note	31 Dec. 2023 EUR thousand	31 Dec. 2022 EUR thousand
Shareholders' equity			
Share capital	(25)	13,280	13,280
Capital reserves	(26)	21,138	21,138
Retained earnings	(26) (27)	119,702	110,494
Treasury shares		-544	-221
Adjustments for foreign currency translation		-109	364
Equity attributable to equity holders of the parent company		153,467	145,055
Non-controlling interests	(28)	2,157	2,224
Total shareholders' equity		155,624	147,279
Non-current liabilities			
Liabilities to banks and other financial liabilities			
Liabilities to banks and other financial liabilities		148	218
Provisions	(29)	19,665	17,263
Lease liabilities	(35)	29,187	30,763
Other non-current financial liabilities	(31)	13,972	4,239
Deferred tax liabilities	(13)	10,078	9,441
		73,050	61,924
Current liabilities			
Liabilities to banks and other financial liabilities			
Liabilities to banks and other financial liabilities		215	199
Contract liabilities	(30)	72,124	68,035
Trade accounts payable		18,937	16,258
Provisions	(32)	15,823	14,914
Lease liabilities	(35)	8,068	8,422
Other current financial liabilities	(31)	6,591	6,087
Other current non-financial liabilities	(31)	15,444	10,261
Current tax liabilities		5,196	6,896
		142,398	131,072
Total shareholders' equity and liabilities		371,072	340,275

Consolidated cash flow statement

	Note	2023 EUR thousand	2022 EUR thousand
Profit/loss before tax		26,419	24,737
Net interest income/expense		496	529
Foreign currency translation		211	126
Profit/loss from the disposal of non-current assets		-3	12
Depreciation of property, plant and equipment and amortisation of intangible assets	(15) (16)	17,527	20,641
Earnings from investments accounted for at equity	(18)	-268	-275
Change in provisions	(29) (32)	1,878	-2,151
Profit from business combinations		-3	0
Income/expense relating to changes in variable purchase price payments	(31)	203	-402
Other non-cash income/expenses		359	389
Net cash flow from operations		46,819	43,606
Change in inventories	(19)	-4,870	-4,448
Change in trade accounts receivable	(20)	-3,282	-1,578
Change in contract assets	(21)	-10,797	-12,122
Change in contract costs	(22)	1,630	-312
Change in other receivables	(23)	-3,242	-6,298
Change in trade accounts payable		2,516	2,868
Change in contract liabilities	(30)	2,370	-1,910
Change in other liabilities	(31)	6,757	239
Change in net working capital		-8,918	-23,561
Interest paid		-1,452	-705
Interest received		779	169
Dividends received		212	114
Income taxes paid	(13)	-11,785	-5,400
Net cash flow from operating activities		25,655	14,223

	Note	2023 EUR thousand	2022 EUR thousand
Cash inflows from the sale of intangible assets		0	1
Cash inflows from the sale of property, plant and equipment		65	20
Cash inflows from time deposits		31,500	2,199
Cash outflows for the purchase of intangible assets		-1,241	-946
Cash outflows for the purchase of property, plant and equipment		-10,504	-9,160
Cash outflows for time deposits		-32,000	-10,000
Cash outflows for investments accounted for at equity		-835	-160
Cash outflows for the acquisition of subsidiaries, less acquired cash and cash equivalents		-5,823	-2,097
Net cash flow from investing activities		-18,838	-20,143
Dividends paid to owners	(25)	-2,921	-2,654
Dividends paid to non-controlling interests	(28)	-1,204	-953
Cash outflows for the acquisition of non-controlling interests		-787	0
Purchase of treasury shares	(25)	-520	0
Cash inflows from loans and other financing		30,568	398
Cash outflows for repayment of loans and other financing		-30,124	-4,599
Cash outflows for payments of principal on lease liabilities	(35)	-8,417	-8,686
Net cash flow from financing activities		-13,405	-16,494
Change in cash and cash equivalents:			
Net cash flow from operating activities		25,655	14,223
Net cash flow from investing activities		-18,838	-20,143
Net cash flow from financing activities		-13,405	-16,494
Net change in cash and cash equivalents		-6,588	-22,413
Cash and cash equivalents at start of period		81,380	103,798
Cash-flow related change in cash and cash equivalents		-6,588	-22,413
Foreign currency translation		-612	-5
Cash and cash equivalents at end of period		74,180	81,380

For further information on the consolidated cash flow statement, see Note 33.

Consolidated statement of changes in shareholders' equity

in EUR thousand	Share capital	Capital reserves	IAS 19 reserve	Option reserve	Cash flow hedge reserve	Retained earnings	Treasury shares	Foreign currency translation	Equity attributable to equity holders of the parent company	Non-controlling interests	Total shareholders' equity
Note	[25]	[26]	[29]	[27]	[34]	[26]	[25]			[28]	
As at 1 January 2023	13,280	21,138	-3,523	739	-125	113,403	-221	364	145,055	2,224	147,279
Profit/loss for the period						18,416			18,416	1,564	19,980
Other comprehensive income			-1,012		125			-472	-1,359	-37	-1,396
Total comprehensive income			-1,012		125	18,416		-472	17,057	1,527	18,584
Dividends						-2,921			-2,921	-1,204	-4,125
Change in treasury shares						-166	-323		-489		-489
Acquisition of non-controlling interests						-296			-296	632	336
Changes in connection with put options						-4,992			-4,992	-1,022	-6,014
Other changes				59		-5			54		54
As at 31 December 2023	13,280	21,138	-4,536	798	0	123,440	-544	-109	153,467	2,157	155,624

in EUR thousand	Share capital	Capital reserves	IAS 19 reserve	Option reserve	Cash flow hedge reserve	Retained earnings	Treasury shares	Foreign currency translation	Equity attributable to equity holders of the parent company	Non-controlling interests	Total shareholders' equity
Note	[25]	[26]	[29]	[27]	[34]	[26]	[25]			[28]	
As at 1 January 2022	13,280	21,138	-6,284	602	-346	98,302	-384	106	126,414	3,436	129,850
Profit/loss for the period						18,723			18,723	155	18,878
Other comprehensive income			2,761		221			257	3,239	114	3,353
Total comprehensive income			2,761		221	18,723		257	21,962	269	22,231
Dividends						-2,654			-2,654	-953	-3,607
Change in treasury shares						-44	163		119		119
Acquisition of non-controlling interests										2,653	2,653
Changes in connection with put options						-832			-832	-3,181	-4,013
Other changes				137		-92			45		45
As at 31 December 2022	13,280	21,138	-3,523	739	-125	113,403	-221	364	145,055	2,224	147,279

Notes to the consolidated financial statements

1. General information

Reporting

The consolidated financial statements of Frequentis AG for the 2023 financial year have been prepared in accordance with the provisions of the International Financial Reporting Standards (IFRS) as adopted by the European Union. Similarly, all interpretations of the IFRS Interpretations Committee that were mandatory for 2023 have been applied.

The present consolidated financial statements, including the Group Management Report, comply with Section 245a of the Austrian Commercial Code (UGB) on consolidated financial statements in accordance with the International Financial Reporting Standards.

Information on the company

These consolidated financial statements include Frequentis AG, registered address Innovationstrasse 1, 1100 Vienna, Austria, and its subsidiaries (subsequently referred to as Frequentis, the Frequentis Group, or the Group).

Its parent company, Frequentis Group Holding GmbH (which holds around 60% of the shares in Frequentis AG), files all required financial statements at its registered office (Dommayergasse 8/15, 1130 Vienna, Austria) and at Vienna Commercial Court under the number FN 477997 m.

Frequentis AG was founded in 1947 and has been registered in the commercial register at Vienna Commercial Court under the number FN 72115 b since 30 August 1948.

According to Section 2 of the articles of association, the purpose of the company is the development, production, distribution, and maintenance of control systems, information processing and transmission systems, and communication systems, especially for air traffic control, road, rail and water transport, and public safety organisations.

The reporting date is 31 December 2023.

The financial year is 1 January to 31 December 2023.

In the reporting period, the Executive Board comprised:

- Norbert Haslacher, Chairman
- Monika Haselbacher
- Hermann Mattanovich
- Peter Skerlan

In the reporting period, the Supervisory Board comprised:

- Johannes Bardach, Chairman
- Dr. Karl Michael Millauer, Deputy Chairman
- Sylvia Bardach, member
- Reinhold Daxecker, member
- Dr. Boris Nemsic, member
- Petra Preining, member
- Stefan Hackethal, member pursuant to Section 110 ArbVG
- Gabriele Schedl, member pursuant to Section 110 ArbVG
- Reinhard Steidl, member pursuant to Section 110 ArbVG

The consolidated financial statements were approved by the Executive Board on the date of signature, subject to approval by the Supervisory Board at its meeting on 27 March 2024.

Consolidated group

Besides Frequentis AG, which is the parent company of the consolidated group, the consolidated financial statements of Frequentis AG include 6 (2022: 6) domestic subsidiaries and 31 (2022: 28) foreign subsidiaries controlled by Frequentis AG.

The Group controls an entity if it is exposed to, 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. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date when control ends.

6 (2022: 7) foreign and 1 (2022: 2) domestic companies are included in the consolidated financial statements by applying the equity method. The reporting date for all companies included in the financial statements is 31 December.

- a) Fully consolidated Austrian subsidiaries
 - Frequentis Invest4Tech GmbH, Vienna (100%)
 - CNS-Solutions & Support GmbH, Vienna (100%)
 - Frequentis DFS Aerosense GmbH, Vienna (70%)
 - PDTS GmbH, Vienna (100%)
 - skyzr GmbH, Vienna (100%)
 - team Technology Management GmbH, Vienna (51%)

- b) Fully consolidated subsidiaries in Europe
 - ATRiCS Advanced Traffic Solutions GmbH, Freiburg, Germany (51%)
 - ELARA Leitstellentechnik GmbH, Aachen, Germany (51%)
 - FRAFOS GmbH, Berlin, Germany (76.67%)
 - FRAFOS CZ s.r.o., Prague, Czech Republic (76.67%)
 - Frequentis Comsoft GmbH, Karlsruhe, Germany (100%)
 - Frequentis Czech Republic s.r.o., Prague, Czech Republic (100%)
 - Frequentis Deutschland GmbH, Langen, Germany (100%)
 - Frequentis France SARL, Toulouse, France (100%)
 - Frequentis Norway AS, Oslo, Norway (100%)
 - Frequentis Orthogon GmbH, Bremen, Germany (100%)
 - Frequentis Recording AS, Borre, Norway (100%)
 - Frequentis Romania S.R.L., Cluj-Napoca, Romania (100%)
 - Frequentis Solutions & Services s.r.o., Bratislava, Slovakia (100%)
 - Frequentis UK Ltd., Twickenham, UK (100%)

- Regola S.r.l., Turin, Italy (51%)
 - Secure Service Provision GmbH, Leipzig, Germany (100%)
 - Systems Interface Ltd., Bordon, UK (51%)
 - TEAM Technology Management GmbH, Gräfelfing, Germany (51%; effective shareholding 26%)
- c) Fully consolidated subsidiaries in the Americas
- Frequentis California Inc., Columbia, USA (100%)
 - Frequentis Canada Ltd., Ottawa, Canada (100%)
 - Frequentis Defense Inc., Columbia, USA (100%)
 - Frequentis do Brasil Assessoria, Serviços e Comércio de Sistemas de Informação e Comunicação Ltda., São Paulo, Brazil (100%)
 - Frequentis USA Inc., Columbia, USA (100%)
 - Frequentis USA Holdings, Inc., Columbia, USA (100%)
- d) Fully consolidated subsidiaries in Asia
- AIRNAV Technology Services Inc., Iloilo, Philippines (65%)
 - Frequentis Middle East Limited, Abu Dhabi, United Arab Emirates (100%)
 - Frequentis (Shanghai) Co. Ltd., Shanghai, China (100%)
 - Frequentis Singapore Pte. Ltd., Singapore (100%)
- e) Fully consolidated subsidiaries in Australia/Pacific
- C4i Pty Ltd, Melbourne, Australia (100%)
 - Frequentis Australia Holding Pty Ltd, Hendra, Australia (100%)
 - Frequentis Australasia Pty Ltd., Hendra, Australia (100%)
- f) Companies accounted for using the equity method
- AMANTEA Ltd., Zabbar, Malta (50%, effective shareholding 25.5%)
 - Flyk Oy, Valkeakoski, Finland (25%) (formerly Aviamaps Oy)
 - GroupEAD Europe S.L., Madrid, Spain (28%)
 - Lift S.r.l., Cagliari, Italy (24%, effective shareholding 12.24%)
 - Mission Embedded GmbH, Vienna, Austria (20%)
 - Nowtech S.r.l., Sassari, Italy (20%, effective shareholding 10.2%)
 - Nemergent Solutions S.L., Bilbao, Spain (24.83%)

All information on the consolidated group relates to the circumstances as at 31 December 2023.

Changes to the consolidated group

AIRNAV Technology Services Inc.

The increase in the interest in **AIRNAV Technology Services Inc.** (registered office: Iloilo, Philippines) from 40% to 65% to extend the system engineering services in Asia was successfully completed on 20 February 2023.

The purchase agreement for the increase in the interest was signed in December 2021 but the transaction was only closed on 20 February 2023 as a result of delays in official registration procedures.

The contractually agreed purchase price of EUR 35 thousand was paid on 21 January 2022 and recognised in the annual financial statements for 2022 in the line item advance payments for non-current assets.

The preliminary fair value of the assets acquired and liabilities assumed is as follows:

	Fair value as at 20 Feb. 2023 100% EUR thousand	Fair value as at 20 Feb. 2023 25% EUR thousand
Property, plant and equipment	66	17
Trade accounts receivable	85	21
Other assets	2	0
Cash and cash equivalents	171	43
Trade accounts payable	-96	-24
Other liabilities	-61	-15
Other current provisions	-8	-2
Current tax liabilities	-6	-2
Net assets	153	38
Consideration paid		35
Profit from the business combination		3

The fair value of the net assets acquired exceeded the consideration paid due to the delay in closing the transaction. The profit from the business combination was recognised immediately in profit/loss.

Transaction costs incurred for the business combination were expensed as incurred. The receivables assumed did not contain any receivables that are expected to be uncollectable, so the carrying amount corresponded to the fair value.

Since the acquisition, AIRNAV has contributed EBIT of EUR 42 thousand to the consolidated figures of the Frequentis Group. This transaction did not increase consolidated revenues because AIRNAV works exclusively for the Frequentis Group.

FRAFOS

On 3 April 2023, Frequentis acquired – through its wholly owned subsidiary Frequentis Invest4Tech GmbH – 76.67% of shares in **FRAFOS GmbH** (registered office: Berlin Germany) and its wholly owned subsidiary FRAFOS CZ s.r.o (registered office: Prague, Czech Republic). FRAFOS solutions are approved for mission-critical installations in government organisations and the company will provide an important security component for cyber security for Frequentis communications in all safety-critical areas.

FRAFOS is a leading provider of IT security solutions for VoIP communications in Germany, offering various software products, including cloud-native solutions developed for virtualised environments, and public-service-approved solutions for mission-critical installations. The FRAFOS Session Border Control (SBC) solution separates communication systems and networks from open, untrusted internet access, blocks DoS (denial of service) attacks and fraud attempts, hides the internal network structure from outsiders, and blacklists suspicious sources. FRAFOS has been allocated to the Public Safety & Transport (PST) segment.

The purchase agreement was signed on 20 February 2023 and transfer of control took place on 3 April 2023.

The contractually agreed purchase price comprised the following components:

	Fair value as at 3 Apr. 2023 100% EUR thousand	Fair value as at 3 Apr. 2023 76.67% EUR thousand
Basic purchase price	3,000	2,300
Purchase price adjustment	601	461
Earn-out	981	752
Total consideration	4,582	3,513

The purchase price adjustment was contingent upon settlement by 20 April 2023 of the customer receivables specified in the purchase agreement. Of the maximum adjustment of EUR 466 thousand, EUR 461 thousand was paid.

The earn-out liability is based on the achievement of the annual EBIT targets for the years 2023 to 2026.

In accordance with the purchase agreement, EUR 2,300 thousand was paid on the closing date and EUR 461 thousand was paid on 15 June 2023 when payment of the customer invoices had been verified.

In addition, the purchase agreement includes an option for non-controlling shareholders in FRAFOS to transfer their interests to Frequentis Invest4Tech. If this option is exercised, Frequentis Invest4Tech has an irrevocable obligation to acquire the interests in this business. The put option can be exercised at the earliest after the resolution on the annual financial statements for 2026. It is based on the enterprise value, calculated as a multiples-based valuation, less net financial debt, and is recognised in other non-current financial liabilities (see Note 31. Other liabilities).

The preliminary fair value of the assets acquired and liabilities assumed is as follows:

	Fair value as at 3 Apr. 2023 100%	Fair value as at 3 Apr. 2023 76.67%
	EUR thousand	EUR thousand
Intangible assets	2,799	2,146
Property, plant and equipment	23	18
Trade accounts receivable	207	159
Other assets	829	635
Cash and cash equivalents	1,363	1,045
Deferred tax liabilities	-844	-647
Contract liabilities	-1,645	-1,261
Trade accounts payable	-22	-17
Other liabilities	-102	-79
Other current provisions	-1	-0
Net assets	2,607	1,999
Consideration paid	4,582	3,513
Goodwill	1,975	1,514

The goodwill from this acquisition was recognised using the full goodwill method and relates primarily to the anticipated synergies from use of the new technologies.

Transaction costs incurred for the business combination were expensed as incurred. The receivables assumed did not contain any receivables that are expected to be uncollectable, so the carrying amount corresponded to the fair value.

Since the acquisition, FRAFOS has contributed revenues of EUR 1,945 thousand and EBIT of EUR 559 thousand to the consolidated figures of the Frequentis Group. Had the acquisition been made at the beginning of the 2023 financial year, FRAFOS would have contributed revenues of EUR 2,580 thousand and EBIT of EUR 771 thousand to the consolidated figures of the Frequentis Group.

Frequentis Recording AS

Frequentis AG acquired the Norwegian software company GuardREC ATC on 4 July 2023 and renamed it **Frequentis Recording AS**. The acquisition was effected by purchasing of 100% of the shares in GuardREC AT from the EMBRON Group, Norway. Frequentis Recording AS specialises in the development of recorder solutions for the air traffic control market. It offers full surveillance, audio, video, and data recording solutions with data analysis functions.

The acquisition allows the planned fusion of the DIVOS and Frequentis Recording technologies to produce a new recording solution. Frequentis Recording's aim of providing secure and user-friendly data recording and replay solutions is consistent with Frequentis' mission "for a safer world".

The solution will comprise all interfaces for audio and video recording that are customary in the sector as well as surveillance and data recording functions. Special features such as vector-based measurements during replay and support for scenario mode will provide effective support for incident investigations.

The integrated solution from Frequentis and Frequentis Recording AS will include manual and automatic speech-to-text features as well as a modern software architecture to allow seamless integration of new data science and big data applications.

The purchase agreement was signed on 16 June 2023 and transfer of control took place on 4 July 2023.

The contractually agreed purchase price comprised the following components:

	Fair value as at 4 July 2023 100% EUR thousand
Basic purchase price	4,500
Working capital/net debt adjustments	55
Earn-out	1,048
Total consideration	5,603

The earn-out liability is based on the number of recording solutions sold within a period of five years following closing of the transaction.

In accordance with the purchase agreement, a purchase price of EUR 4,577 thousand was paid on the closing date and EUR 22 thousand was refunded on 10 October 2023 following final determination of the purchase price.

The fair value of the assets acquired and liabilities assumed was as follows:

	Fair value as at 4 July 2023 EUR thousand
Intangible assets	2,214
Property, plant and equipment	89
Inventories	32
Trade accounts receivable	420
Other assets	33
Cash and cash equivalents	208
Deferred tax liabilities	-434
Liabilities to banks and other financial liabilities	-67
Contract liabilities	-73
Trade accounts payable	-10
Other current provisions	-66
Other liabilities	-62
Current tax liabilities	-77
Net assets	2,207
Attributable to the Frequentis Group	2,207
Goodwill	3,396
Consideration paid	5,603

The goodwill from this acquisition mainly relates to the expected synergies from the integration of technologies, strengthening recording competence, and extending the features offered by Frequentis.

Transaction costs incurred for the business combination were expensed as incurred. The receivables assumed did not contain any receivables that are expected to be uncollectable, so the carrying amount corresponded to the fair value.

Since the acquisition, Frequentis Recording has contributed revenues of EUR 26 thousand and EBIT of EUR -201 thousand to the consolidated figures of the Frequentis Group. Had the acquisition been made at the beginning of the 2023 financial year, Frequentis Recording would have contributed revenues of EUR 1,024 thousand and EBIT of EUR 54 thousand to the consolidated figures of the Frequentis Group.

Other changes to the consolidated group

As at 1 January 2023, Frequentis Canada ATM Ltd. was merged into Frequentis Canada Ltd. On 21 February 2023, BlueCall Systems GmbH was renamed Frequentis Invest4Tech GmbH. Neither of these changes had an impact on the consolidated financial statements.

On 3 July 2023, 20% of the shares in Secure Service Provision GmbH, Germany, were purchased for EUR 787 thousand, increasing Frequentis' stake from 80% to 100%.

Since Frequentis no longer delegates a managing director for AIRlabs Austria GmbH (18% interest) and has thus relinquished its significant influence, this company is no longer accounted for using the equity method; it is now presented as an equity instrument.

2. Accounting policies

The consolidated financial statements are prepared by applying the historical cost convention. Excluded from this principle are derivative financial instruments, equity instruments, and contingent purchase price liabilities, which are measured at fair value, and employee benefit obligations, which are measured using the projected unit credit (PUC) method.

The financial statements of all consolidated companies are prepared using uniform Group-wide accounting policies. There are no significant differences in the accounting policies used for the investments accounted for at equity compared to those applied by the Frequentis Group.

In the event of business combinations, the assets, liabilities, and contingent liabilities of the subsidiaries acquired are measured at fair value at the date of acquisition as specified by IFRS 3. If the fair value of the consideration transferred and the amount of all non-controlling interests in the acquired business exceed the fair value of the acquired identifiable assets and liabilities, the difference is recognised as goodwill. Any excess of the net assets acquired over the fair value of the consideration transferred is recognised in profit or loss, after a reassessment of their measurement.

The consolidated financial statements of Frequentis AG are prepared in euros (EUR). All amounts are reported in thousands of euros (EUR thousand), except where otherwise stated. Rounding may result in minor discrepancies in totals as a result of the use of automatic data processing.

The annual financial statements of subsidiaries whose functional currency is not the euro are translated into the reporting currency (EUR) using the modified closing rate method. Equity items are translated at the historical rates; the other items in the statement of financial position are translated using the mean exchange rate as at the reporting date. Income statement items are translated using average annual exchange rates. The foreign currency translation differences arising from different exchange rates are recognised in other comprehensive income (OCI) and are presented in “foreign currency translation”, a separate line item within shareholders’ equity, until the subsidiary is sold.

The following exchange rates are used for translation of the main currencies (exchange rates for EUR 1):

Currency		Closing rate 31 Dec. 2023	Closing rate 31 Dec. 2022	Average rate 31 Dec. 2023	Average rate 31 Dec. 2022
AED	Emirati dirham	4.06	3.92	3.98	3.86
AUD	Australian dollar	1.63	1.57	1.63	1.52
BRL	Brazilian real	5.36	5.64	5.39	5.41
CAD	Canadian dollar	1.46	1.44	1.46	1.37
CNY	Chinese renminbi yuan	7.85	7.36	7.68	7.07
CZK	Czech koruna	24.72	24.12	23.97	24.54
GBP	British pound	0.87	0.89	0.87	0.85
NOK	Norwegian krone	11.24	10.51	11.47	10.11
PHP	Philippine peso	61.28		60.19	
RON	Romanian leu	4.98	4.95	4.95	4.93
SGD	Singapore dollar	1.46	1.43	1.45	1.45
USD	US dollar	1.11	1.07	1.08	1.05

Revenues, income, expenses, receivables, and liabilities resulting from intercompany transactions, and intercompany profits or losses are eliminated in consolidation, taking into account deferred taxes.

New and amended standards and interpretations

When preparing the consolidated financial statements, the following amendments to existing IAS/IFRS standards and interpretations, as well as the new standards and interpretations were applied, insofar as they had been endorsed by the European Union by 31 December 2023 and were effective at that date:

- Insurance Contracts (IFRS 17)
- Disclosure of Accounting Policies (IAS 1)
- Changes in Accounting Estimates and Errors (IAS 8)
- Deferred Tax related to Assets and Liabilities arising from a Single Transaction (IAS 12)
- IAS 12 Income Taxes – International Tax Reform – Pillar 2 Model Rules

Where applicable, the above standards and amendments were applied in these consolidated financial statements. The effects of these changes on the financial statements were insignificant.

In addition, some of the following new and amended standards had been endorsed by the EU but were not mandatory for the 2023 financial year. The Frequentis Group did not adopt these standards early on a voluntary basis, even if they had already been endorsed by the EU.

	Newly amended IFRSs	Endorsement by the EU	Effective date	Significant effects
IFRS 16	Lease Liability in a Sale and Leaseback	20 Nov. 2023	2024	None
IAS 1	Classification of Liabilities as Current or Non-Current	19 Dec. 2023	2024	None
IAS 7 / IFRS 7	Supplier Finance Arrangements	Open	2024	None
IAS 21	Effects of Changes in Foreign Exchange Rates	Open	2025	None

Intangible assets, property, plant and equipment

Intangible assets and property, plant and equipment are measured at acquisition or manufacturing cost less accumulated amortisation, depreciation, and impairment losses. The acquisition cost of intangible assets, property, plant, and equipment comprises the purchase price including import duties and non-refundable taxes, and all directly allocable costs incurred to bring the asset to the intended location and condition necessary for it to be capable of operating. The manufacturing cost of self-constructed property, plant and equipment comprises material and production costs and production overheads.

Borrowing costs that are directly attributable to the acquisition or manufacturing cost of a qualifying asset are capitalised as part of the cost of acquisition or production of the asset. Other borrowing costs are recognised as expenses.

The following useful lives are used for amortisation of intangible assets and depreciation of property, plant and equipment. They are unchanged from the previous year.

Buildings on leased land	5 - 40 years
Technical plant and machinery	3 - 10 years
Other plant, factory and office equipment	2 - 20 years
Software and licences	3 - 10 years

Maintenance and repairs are expensed as incurred; replacement costs and investments to increase the value of an asset are capitalised. When an item of property, plant and equipment is derecognised, the acquisition cost and accumulated depreciation are recorded as a disposal and the difference between the disposal proceeds and the carrying amount is recognised in other operating income or expense.

Goodwill

Goodwill, which results exclusively from business combinations, is not amortised. Instead, it is tested for impairment at least annually.

Impairment losses

Goodwill acquired in business combinations and intangible assets with an indefinite useful life are tested for impairment at least annually. The impairment test is performed irrespective of whether there is an indication of impairment. For the impairment test, the goodwill is allocated to those cash-generating units that are expected to benefit from the synergies of the business combination.

In accordance with the provisions of IAS 36 "Impairment of Assets", an impairment loss is recognised on goodwill if the carrying amount of the associated cash-generating unit exceeds the higher of the fair value less costs of disposal and the value in use.

Goodwill, intangible assets, and property, plant and equipment are tested for impairment if there are indications of a possible impairment, irrespective whether the asset is still in use or is to be sold. An impairment loss must be recognised for assets if the carrying amount exceeds the higher of the fair value less costs of disposal and the value in use. The value in use is derived from the estimated future net cash flows that would be generated by continuing use of the asset over its useful life or that would probably be generated by a potential sale. If the recoverable amount of individual assets cannot be estimated, it is determined for the cash-generating unit to which the asset is allocated. If there is significant uncertainty regarding the estimated future cash flows, several risk-weighted cash flow scenarios are used to determine the value in use.

If an impairment test identifies the need to recognise an impairment loss, the corresponding expense is recognised in the line item impairment loss on goodwill, property, plant and equipment, or intangible assets.

If there are indications that circumstances that resulted in an impairment loss on property, plant and equipment or intangible assets (other than goodwill) in the past no longer exist, it is assessed whether the impairment loss should be reversed.

Investments accounted for at equity (associated companies)

Associated companies are companies where the Group exercises significant influence over financial and operating policy decisions but does not control or jointly control the investee. Associated companies are included in the consolidated financial statements using the equity method and are initially recognised at acquisition cost. In subsequent periods, the carrying amount of the investment increases or decreases in accordance with the Frequentis Group's share of the profit or loss of the associated company.

An impairment test is performed if there are indications that an investment in a company accounted for using the equity method may be impaired. The proportionate goodwill is not tested separately. The impairment test is performed on the entire carrying amount of the investment. Consequently, the impairment losses are not allocated separately to the goodwill contained in the carrying amount of the investment and may therefore be completely reversed in subsequent periods.

Leases

Frequentis as lessee

At the inception of a contract, the Frequentis Group assesses whether the contract is, or contains, a lease. A contract is, or contains, a lease if it conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

At the commencement date or upon modification of a contract that contains a lease component, the Frequentis Group allocates the contractually agreed consideration based on the relative stand-alone prices of the components. Non-lease components of a contract such as electricity, servicing, etc. are excluded from the calculation of the right-of-use asset. On the commencement date, the Frequentis Group recognises an asset for the right of use granted and a lease liability. The right-of-use asset is initially measured at cost, which corresponds to the initial measurement of the lease liability, adjusted for any initial direct costs and costs of dismantling the underlying asset, less any lease incentives received.

In accordance with IFRS 16, the lease term is essentially the non-cancellable period of the lease. In addition, options to extend or terminate the lease are taken into account if it is reasonably certain that they will be exercised.

The lease liability is initially measured on the commencement date at the present value of the lease payments that are not paid at that date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the incremental borrowing rate of the Frequentis Group. The Frequentis Group generally uses the incremental borrowing rate.

To determine the incremental borrowing rate, the Frequentis Group uses interest rates from various external financial sources and adapts these to reflect the lease term.

The lease payments included in the measurement of the lease liability comprise:

- fixed payments, including in-substance fixed payments,
- variable lease payments that depend on an index or (interest) rate,
- amounts expected to be payable by the lessee under residual value guarantees,
- the exercise price of a purchase option or the lease payments relating to an extension option, if the lessee is reasonably certain to exercise that option,
- and penalties for terminating the lease, unless it is reasonably certain that the Frequentis Group will not exercise such termination options.

The right-of-use assets are recognised in the line item within property, plant and equipment where the underlying assets would have been recognised if they had been purchased.

The right-of-use assets are depreciated by applying the straight-line method over the useful life of the leased asset or the term of the lease if this is shorter, including any extension options. Depreciation is based on the following useful lives:

Right-of-use assets for land and buildings	2 - 8 years
Right-of-use assets for other plant, factory and office equipment	2 - 6 years

There has not been any change in the useful lives compared with the previous year.

The carrying amount of the lease liability is subsequently measured using the effective interest method. The lease liability is remeasured if there is a change in future lease payments resulting from a change in the index or the (interest) rate used, if there is a change in the amounts expected to be payable under a residual value guarantee, and if there is a change in the assessment of a purchase, extension or termination option.

In the event of such remeasurement of the lease liability, a corresponding adjustment is made to the carrying amount of the right-of-use asset or the adjustment is recognised in profit or loss if the term or scope of the lease has been reduced (taking into consideration the reduction in the lease liability) or the carrying amount is reduced to zero. The Frequentis Group has decided not to recognise right-of-use assets and lease liabilities for leases where the underlying leased assets are of low value and for short-term leases. In addition, the option to exclude intangible assets from the scope of IFRS 16 is applied. The Frequentis Group recognises the lease payments relating to such leases as expense on a straight-line basis over the term of the lease.

Lease payments are divided into the payments of principal and interest. The payments of principal relating to the lease liabilities are recognised in the cash flow from financing activities, while the interest payments are recognised in the cash flow from operating activities

Frequentis as lessor

As lessor, the Frequentis Group only has insignificant subleases and leases for voice communication systems.

Leases where the Group is the lessor are classified as finance or operating leases in accordance with the standard. A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership of an underlying asset to the lessee. All other leases are classified as operating leases. The Frequentis Group only has operating leases.

Assets leased under operating leases are recognised in property, plant and equipment and depreciated over their estimated useful life. Income from operating leases is recognised on a straight-line basis over the term of the lease. If a contract contains both lease and non-lease components, the Group uses the corresponding provisions of IFRS 15 to allocate the consideration to the individual components.

Financial instruments

A financial asset or financial liability is initially measured at fair value plus transaction costs. This does not include financial assets classified at fair value through profit or loss. They are initially measured at fair value excluding transaction costs. Trade accounts receivable that do not contain significant financing components are initially measured at the transaction price. Non-derivative financial assets are initially recognised at the settlement date, while derivative financial assets are initially recognised at the trade date. Gains and losses from the disposal of financial instruments are determined by comparing the carrying amount with the proceeds of the sale.

The following categories are used for initial classification and measurement of financial assets:

- At amortised cost
- At fair value through other comprehensive income (FVOCI)
- At fair value through profit or loss (FVTPL)

The classification is performed separately based on the type of instrument: derivative financial instruments, equity instruments, and debt instruments.

Subsequent measurement of all financial assets depends on the category to which they are assigned.

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

If a financial asset is a debt instrument, it is measured at amortised cost if both of the following conditions are satisfied and it is not designated at FVTPL:

- it is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows, and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

In the Frequentis Group, all trade accounts receivable, loans, and other receivables with fixed or determinable payments are allocated to this category. These assets are measured at amortised cost using the effective interest method. The amortised cost is reduced by impairment losses. Interest income, exchange rate gains and losses, derecognition effects, and impairment losses are recognised in profit or loss.

A debt instrument is carried at FVOCI if both of the following conditions are met and it is not carried at FVTPL:

- it is held within a business model whose objective is achieved both by holding financial assets in order to collect contractual cash flows and by selling financial assets, and
- the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

In the Frequentis Group, no instruments were allocated to this category in either 2023 or 2022.

At the date of initial recognition of an equity instrument that is not held for trading, the Group can elect irrevocably to present subsequent changes in the fair value of the investment in other comprehensive income. This option can be exercised for each investment on a case-by-case basis.

All financial assets that are not measured at amortised cost or at FVOCI are measured at FVTPL. This comprises all derivative financial assets that are not designated as a cash flow hedge in a hedging relationship.

Financial liabilities are classified and measured at amortised cost or at fair value through profit or loss (FVTPL). A financial liability is classified at FVTPL if it is held for trading or is a derivative.

Financial assets and liabilities at FVTPL are measured at fair value and any net gain or loss, including interest expense, is recognised in profit or loss.

Other financial liabilities are subsequently measured at amortised cost using the effective interest method. Interest expense, exchange rate gains and losses, and derecognition gains and losses are also recognised in profit or loss.

The Group holds derivatives in the form of forward exchange contracts to hedge currency risks.

Derivatives are measured at fair value, both at initial recognition and subsequently. Any changes in their fair value are recognised in profit or loss.

Receivables are measured at cost. Foreign currency receivables are measured using the mean exchange rate on the reporting date.

Provided that an asset is not credit-impaired at initial recognition, it is initially measured using the 12-month expected credit losses concept. This assessment is maintained for subsequent reporting dates. If the credit risk of a financial asset has increased significantly on the reporting date compared with its credit risk at initial recognition, the lifetime expected credit losses method is applied. The lifetime expected credit losses concept must always be applied to trade accounts receivable and to contract assets without a significant financing component.

When determining whether the credit risk of a financial asset has increased significantly since its initial recognition and estimating expected credit losses, the Group uses appropriate and supportable evidence that is relevant and available with economically reasonable effort. This comprises both quantitative and qualitative information and analyses based on the Frequentis Group's historical experience, prospective information, and a solid creditworthiness assessment.

Inventories

Raw materials and supplies are measured at acquisition or manufacturing cost or at net realisable value if this is lower. For raw materials and supplies, the replacement cost was determined to be the best available measure for their net realisable value.

Work in progress and finished goods are measured at the manufacturing cost or lower net realisable value. The net realisable value is the price that could be obtained in the ordinary course of business less the estimated costs of completion and the estimated cost necessary to make a sale. The manufacturing cost is calculated using all direct costs incurred, and fixed and variable production overheads. Borrowing costs are not recognised because the criteria set out in IAS 23 are not met. The consumption of goods is determined using the moving average cost method.

IFRS 15 Revenue from Contracts with Customers

The Frequentis Group accounts for customer contracts using the five-step model in accordance with IFRS 15. The first step in the model is identifying the contract with a customer. This is followed by identifying the distinct performance obligations. In this step, distinct goods and services and bundles of goods and services are identified. The third step is determining the transaction price. The transaction price is the amount of consideration the supplying company expects to be entitled to in exchange for transferring the goods or services. The transaction price is then allocated to the identified performance obligations. The final step is recognising revenue when the performance obligation is satisfied. Revenue is recognised either at a point in time or over time.

For the vast majority of the Frequentis Group's contracts with customers, revenue is recognised over time. Revenue is recognised on the basis of the progress towards satisfaction of the performance obligation using the cost-to-cost method. Under this method, revenues are recognised on the basis of the production costs actually incurred in relation to the expected total cost. The impact of changes in the estimated total cost is recognised in profit or loss in the period in which it occurs.

For certain services (e.g. consulting and repairs) with a short lead time or performance period, orders for spare parts or small parts, and the sale of standard products without customer-specific adaptation or extensive processing required to put the product into operation at the customer's premises, revenue is recognised at a point in time. Revenue is recognised when control is transferred to the customer or the performance obligation is completely satisfied.

The contract assets do not contain significant financing components.

Certain costs such as the cost incurred in obtaining a contract and the cost of fulfilling a contract to deliver goods and services to customers are recognised as contract costs (mainly sales commission) and amortised in line with the transfer of control over the goods and services to the customer.

The contract liabilities comprise all obligations from contracts with customers (goods or services) for which the Frequentis Group has already received (or will receive) consideration. This mainly relates to advance payments from customers and services still to be performed for projects already invoiced.

Employee benefit obligations

The obligations for severance payments, pensions, and anniversary bonuses were measured on the basis of an actuarial valuation using the projected unit credit method in accordance with IAS 19 "Employee Benefits".

When determining the severance payment obligation, the retirement age was deemed to be the earliest possible date for (early) retirement under the 2018 pension reform.

The pension provisions were established on the basis of an actuarial valuation. Since the pension insurance policy has been pledged to the Executive Board, it meets the definition of plan assets and the pension provisions are offset against the amount accumulated in the pension insurance scheme in accordance with IAS 19.

The effects of remeasurement of post-employment benefits (severance payment and pension obligations) are recognised in other comprehensive income. Any past service cost is recognised immediately in profit or loss. The interest cost is recognised together with the service cost in personnel expenses.

Share-based payment

As part of a long-term incentive plan, Frequentis AG has granted share-based payment to one member of the Executive Board. This is accounted for in accordance with IFRS 2 "Share-based Payment". The plan is exclusively equity-settled. Frequentis AG therefore measures these instruments at fair value on the grant date, taking into account the performance conditions on which the instruments are granted. The expense is allocated over the specified service period.

Provisions

Provisions are recognised if there is a present (legal or substantive) obligation arising from a past event, an outflow of economic resources to meet this obligation is probable, and the level of the obligation can be estimated reliably. The provision is measured at the expected settlement amount. Provisions are reviewed at every reporting date and adjusted on the basis of the new assessment. If the interest rate effect is material, non-current provisions are recognised at the present value of the expected outflow to settle the obligation.

Research and development costs

Research projects are original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge. In the Frequentis Group, research projects generally have a time horizon of 3 to 10 years and their technical and commercial outcome is uncertain. All research expenditures are expensed as incurred (IAS 38.54).

Development projects comprise expenditures that serve to apply theoretical knowledge for technical and commercial use. If the criteria for recognition as an intangible asset pursuant to IAS 38.21 are met, the directly allocable development costs are recognised as an intangible asset; otherwise, the development costs are expensed as incurred. In the reporting period, as well as in the previous year, the technical feasibility of hardware and software development projects either could not be assessed or the research and development phases could not be clearly distinguished. Moreover, confirmation of technological feasibility and commercial usability is generally only obtained shortly before projects are ready for the commercial market. Therefore, with the exception of one development in 2023, the criteria for recognition as an intangible asset were not met in either 2023 or 2022.

Grants and subsidies

Subsidies granted to compensate for expenses that meet the recognition criteria are recognised immediately in profit or loss in the period in which the expenses are incurred. Grants related to assets, in other words, government grants where the primary condition is that an entity purchases, constructs, or otherwise acquires long-term assets, are deducted from the related assets when determining their carrying amount (net presentation).

Income taxes

Tax expense comprises current and deferred taxes. Current and deferred taxes are recognised in profit or loss, except if they relate to a business combination or to items recognised directly in equity or in other comprehensive income.

Current taxes are the expected tax liability or tax receivable on the taxable profit for the financial year, based on the tax rates that have been enacted on the reporting date, and all adjustments to the tax liability for previous years.

The applicable income tax rates for foreign Group companies were between 16% and 32% in the reporting period (2022: between 16% and 32%).

As at December 31, 2023, the OECD BEPS Pillar 2 rules were incorporated into Austrian law. The legislation is effective for financial years beginning after December 31, 2023. Since Frequentis' consolidated annual revenues are below the EUR 750 million threshold, application of the provisions is not mandatory at present.

In accordance with IAS 12, deferred taxes are recognised in the IFRS financial statements for temporary differences between the carrying amounts of assets and liabilities and their tax base.

Deferred taxes are not recognised for:

- taxable temporary differences on initial recognition of goodwill,
- temporary differences on initial recognition of assets or liabilities for a business transaction that is not a business combination and that does not affect either the profit before tax or the taxable profit,
- temporary differences relating to investments in subsidiaries, associated companies, and joint operations, provided that the Frequentis Group is able to control the timing of reversal of temporary differences and it is probable that they will not be reversed in the foreseeable future.

Deferred tax assets and liabilities are netted if there is a corresponding legally enforceable claim to offset them and the deferred tax assets and liabilities refer to income taxes that are levied by the same tax authority for the same taxable entity.

In order to assess whether deferred tax assets are impaired, the Executive Board estimates the probability that these items can be utilised in the future. The ability to utilise deferred tax assets is based on the assumption that taxable profit will be available in the future periods in which the temporary differences will be tax-deductible. The Executive Board includes the planned reversal of deferred tax liabilities and the estimated taxable future profit in its assessment.

Significant estimates and use of judgement

Preparation of the consolidated financial statements in accordance with the generally accepted accounting and valuation principles of the IFRS involves estimates and assumptions that may influence the amount and presentation of the reported assets and liabilities, the disclosure of contingent assets and liabilities as at the reporting date, and the reported income and expenses during the reporting period. The actual amounts may ultimately differ from the estimates and assumptions. Estimates and assumptions are reviewed continuously and revised prospectively.

When preparing the consolidated financial statements, the Frequentis Group made the following judgements:

- a) When assessing the term of leases, especially real estate leases, the Frequentis Group takes into account any extension or termination options where it is reasonably certain that they will be exercised.

The consolidated financial statements include the following items whose measurement depends to a large extent on assumptions and estimates:

- a) Useful life of non-current assets: Property, plant and equipment and purchased intangible assets are recognised at the acquisition or manufacturing cost and depreciated/amortised over their useful life using the straight-line method. Factors such as wear and tear, obsolescence, technical standards, and contract duration are taken into account when determining the useful life.
- b) Estimated impairment of goodwill: The Frequentis Group tests goodwill for impairment annually. The recoverable amount of cash-generating units is determined by calculating their value in use. This is based on corresponding planning calculations, which are naturally based on estimates and assumptions. See Note 17 for information on the assumptions used and the sensitivity analyses performed in impairment testing of goodwill.
- c) Revenue is recognised over time based on the progress towards satisfaction of the performance obligation using the input-based method (cost-to-cost method). Accounting for contracts realised over time is based on estimated contract costs, the achievable contract revenue, and the risks associated with the contract. These estimates are regularly reviewed and revised. Although the estimates are made using all information available at the reporting date, changes may occur. These changes may affect both the revenue recognised and the carrying amounts of contract assets.

Evaluating whether two or more contracts with a customer have to be combined or whether a contract with a customer has to be split into a series of performance obligations involves estimates that may affect the recognition of revenue or profit. Variable consideration is estimated at the most likely amount to which an entitlement exists. These estimates are based, in particular, on expectations and on the historical, present, and forecast information available at the reporting date.

- d) The recognition of provisions for onerous contracts is subject to estimates of the expected contract costs and contract results. These estimates are based on historical experience and current information as at the reporting date.
- e) Post-employment benefit obligations are measured using various parameters such as the discount rate and salary increases. Changes in these parameters may result in a change in the obligation recognised. The sensitivity of post-employment benefit obligations is outlined in Note 29. Non-current provisions.
- f) The recognition of deferred tax assets requires that sufficient taxable income will be generated in the future against which the tax credits and loss carryforwards can be utilised. The assessment as to whether deferred taxes can be recognised is subject to estimates of various factors. Tax matters are subject to uncertainties regarding their assessment by the tax authorities, therefore it cannot be precluded that in individual cases they may reach a different conclusion than the Frequentis Group.

- g) In connection with the acquisition of the shares in ATRiCS Advanced Traffic Solutions GmbH, FRAFOS GmbH, and Frequentis Recording AS, in addition to the basic purchase price, an earn-out payment was agreed. This is dependent on the achievement of certain targets in the future. To measure the earn-out liabilities as at 31 December 2023, assumptions were made on the development of these items. For further information, see Note 31. Other liabilities. If the actual development differs significantly from the assumptions made, this may impact earnings because the liability is subsequently measured at fair value through profit or loss.
- h) The liabilities for the put options relating to non-controlling interests correspond to the enterprise value less net financial debt of ELARA Leitstellentechnik GmbH, FRAFOS GmbH, and Regola S.r.l. The enterprise value is determined using a multiples-based valuation. To measure the liabilities, assumptions were made about the development of these items. For further information, see Note 31. Other liabilities. Significant changes in the underlying assumptions do not impact earnings because the changes are recognised in equity.
- i) Impairment loss on the deposits at Commerzialbank Mattersburg im Burgenland AG: Since 31 December 2020, all claims against Commerzialbank Mattersburg have been fully impaired because, based on the information on the insolvency proceedings, it can be assumed that the recovery quota of the insolvency estate will not be economically relevant. Due to the complex nature of the lawsuits filed by Frequentis in 2020, they are not currently at a stage that justifies the recognition of a claim in the financial statements. Depending on the further course of these proceedings, positive effects on earnings may arise if Frequentis is awarded a quota of the insolvency estate or if its claims for compensation in pending proceedings are successful and the amounts can be collected.
- j) Climate change and the associated warming will result in a number of changes. The global increase in temperatures and extreme weather events such as storms, exceptionally heavy rainfall, including floods, as well as droughts and heatwaves are adversely affecting many people's livelihoods. Coastal areas are exposed to an additional risk from rising sea levels. Many cities in south and south-east Asia and Australia are located directly on the coast. Frequentis has some companies in these regions.

Frequentis could be indirectly affected by climate change – on the procurement market as a result of supply chain delays and disruption and on the sales side by problems due to increasing social and civil conflicts. As a supplier of communication and information systems for control centres in the safety-critical sector, Frequentis' business model is not currently affected by the impact of climate change but the mid-term effects cannot yet be estimated. Climate change did not have any significant effect on the consolidated financial statements for 2023.

The possible impact on impairment testing and the useful life of non-current assets was examined, and none was identified.

- k) The war in Ukraine indirectly resulted in higher prices, especially for electricity, gas, and fuels. Consequently, prices of other everyday products increased, so inflation increased sharply almost everywhere in the world and was well above the average for recent years. This resulted in the need to adjust prices for existing and new customer projects. The annual inflation-adjusted pay rises for employees under collective agreements and other salary agreements are and will gradually have a direct influence on the Frequentis Group's personnel expenses in 2023 and 2024. The expected future impact of the cost increases was taken into consideration in the measurement of projects and non-current personnel provisions and recognised in contract assets, contract liabilities, and non-current provisions.

Notes to the consolidated income statement

3. Segment report

Operating segments

- Air Traffic Management
- Public Safety & Transport

The Air Traffic Management (ATM) segment comprises the ATM Civil business domain (which includes AIM / Aeronautical Information Management) and the ATM Defence business domain. This segment focuses on civil and military air traffic control organisations and therefore generally on one to two customers per country. It is estimated that the market entry barriers are relatively high.

The business domains' products are similar and are based on the same product platform. In the Defence business domain, there is also demand for additional encryption solutions. The safety and quality management requirements are the same: the international regulations for standardisation of air traffic issued by the International Civil Aviation Organization (ICAO) apply. Moreover, the infrastructure to be installed for customers (radar, radio transmission, networks) is similar.

Frequentis' ATM portfolio for the defence sector comprises communication and information systems for air defence and military air traffic control, systems for networked operational management and tactical networks, management and information systems, including systems for integrated use by different authorities, and encrypted, interoperable communication systems for mission-critical applications.

The Public Safety and Transport segment comprises the Public Safety, Public Transport, and Maritime business domains. Its customers are public authorities or related organisations with monitoring and control functions.

The Public Safety business domain's customers are the police, fire, and rescue services. Police organisations also require additional encryption solutions. Alongside conventional rail operators, the Public Transport business domain's customers include local public transport providers. The Maritime business domain focuses on coastguards and port authorities.

The business domains' products are similar and are based on the same product platform. Moreover, the infrastructure to be installed for customers (phones, radio transmission, networks) is similar. Despite several international standardisation efforts, different national and regional requirements and regulations still apply.

Data on the operating segments

The chief operating decision maker of the Frequentis Group is the Executive Board. The accounting policies applied by the individual segments are the same as those for the Frequentis Group. Earnings before interest and taxes (EBIT) are used for internal reporting and correspond to the segment result as defined in IFRS 8.23. There are no inter-segment revenues. The amounts in the column headed reconciliation/consolidation mainly comprise transactions that cannot be allocated clearly to one segment and were undertaken for both segments.

	Air Traffic Management 2023 EUR thousand	Public Safety & Transport 2023 EUR thousand	Reconciliation/ consolidation 2023 EUR thousand	Total 2023 EUR thousand
Revenues	293,328	133,754	405	427,487
Change in inventories of finished goods and work in progress	-140	-100	-214	-454
Own work capitalised	3,576	380	126	4,082
Other operating income	6,009	1,441	605	8,055
Profit from business combinations	0	0	3	3
Total income (operating performance)	302,773	135,475	925	439,173
EBIT	10,061	16,656	-71	26,647
Impairment losses				0

	Air Traffic Management 2022 EUR thousand	Public Safety & Transport 2022 EUR thousand	Reconciliation/ consolidation 2022 EUR thousand	Total 2022 EUR thousand
Revenues	257,772	127,675	523	385,970
Change in inventories of finished goods and work in progress	-318	84	256	22
Own work capitalised	2,268	0	306	2,574
Other operating income	8,470	1,355	689	10,514
Total income (operating performance)	268,192	129,114	1,774	399,080
EBIT	10,214	14,919	-142	24,991
Impairment losses	-3,106	0	0	-3,106

Segment assets and segment liabilities are not disclosed here because internal reporting does not include a breakdown of assets between the two segments.

Details of Group-wide data

Neither in 2023, nor in 2022, did the Frequentis Group generate more than 10% of its total revenues with any single customer.

In terms of revenue categories, 36% (2022: 41%) of the Group's revenues were generated principally with new products for established customers and existing products sold to new customers, 61% (2022: 56%) comprised IBB (installed base business, i.e. follow-on business for installed systems and solutions), and 3% (2022: 3%) came from other sources (mainly consulting). Approximately half of the installed base business comprised maintenance contracts.

The regional breakdown of orders received by end-users was as follows:

	2023	2022
Europe	62.2%	63.3%
Americas	17.9%	11.6%
Asia	9.6%	18.0%
Australia/Pacific	8.2%	6.3%
Africa	2.1%	0.7%

Orders on hand as at 31 December 2023 totalled EUR 594,658 thousand (2022: EUR 522,033 thousand). The ATM segment accounted for EUR 377,290 thousand (2022: EUR 329,709 thousand) of this amount and the PST segment for EUR 217,368 thousand (2022: EUR 192,323 thousand).

Regional breakdown of non-current assets

	2023 EUR thousand	2022 EUR thousand
Austria	35,081	37,253
Europe (excluding Austria)	34,454	23,730
Australia/Pacific	7,346	7,916
Americas	10,486	6,391
Asia	311	440
	87,678	75,730

Non-current assets comprise property, plant and equipment, intangible assets, goodwill, investments accounted for at equity, and equity instruments.

4. Revenues

The following comments apply for both segments, because both generate almost all of their revenue with customer-specific production orders and maintenance contracts. Only a few of the products sold are not customised.

Revenues are recognised when the contractually agreed milestones have been achieved. Amounts where the work or services have been performed but which have not yet been invoiced are recognised as contract assets. In principle, invoices are due within thirty days.

Revenues from customer-specific construction contracts and multi-component contracts meet the criteria for recognition of revenue over time based on the progress towards satisfaction of the performance obligation because there is no alternative use for the asset produced and the Frequentis Group has a right to receive payment for the work performed (costs plus an appropriate margin).

Revenues are recognised using the input-based method (cost-to-cost method). Contract assets are only recognised if they exceed the associated advance payments from customers. In the reporting period, contract assets increased by EUR 10,797 thousand (2022: EUR 12,122 thousand). The increase in contract assets is the net result of a large number of newly commenced and invoiced projects.

In the case of maintenance contracts, the customer generally receives the benefits as the performance obligation is satisfied. Revenue is recognised over time. Exceptions from this rule are certain services (e.g. consulting and repairs) with a short lead time or performance period, and orders for spare parts or small parts where the revenue is recognised at a point in time. The revenues from these orders amounted to EUR 27,148 thousand in the reporting period (2022: EUR 18,377 thousand).

In accordance with IFRIC 22, the Frequentis Group measures advance payments made and received in foreign currencies at the exchange rate at the transaction date, rather than the exchange rate at the reporting date.

All revenues presented below are revenues from contracts with customers pursuant to IFRS 15.

The revenue split by category in the reporting period was as follows:

	2023	2022
	EUR thousand	EUR thousand
New products and/or new customer business	153,913	157,693
IBB (installed base business)	259,779	217,628
Other revenues	13,795	10,649
	427,487	385,970

The regional breakdown of revenues by end-users was as follows:

	2023	2022
	EUR thousand	EUR thousand
Europe	279,638	252,747
Americas	68,167	60,691
Asia	46,232	45,034
Australia/Pacific	25,219	19,418
Africa	5,391	6,393
Small orders (not allocated)	2,840	1,687
	427,487	385,970

The line item "small orders" relates to revenues from customer contracts that were not allocated to the other categories in the above table.

The transaction price of unsatisfied or only partially satisfied performance obligations was EUR 594.7 million (31 December 2022: EUR 522.0 million) and corresponds to the orders on hand in the Frequentis Group at the reporting date. It is expected that revenue of approximately EUR 312.2 million will be recognised in 2024 and revenue of EUR 282.5 million will be recognised in 2025 and subsequent years. The expected timing of revenue recognition is based on the expected progress towards satisfaction of the performance obligation.

5. Own work capitalised

The expenses capitalised in 2023 comprise EUR 3,369 thousand (2022: EUR 2,261 thousand) for self-produced assets in connection with operating leases (see Note 35. Leases), EUR 380 thousand (2022: EUR 0 thousand) for capitalised development work, and EUR 333 thousand (2022: EUR 313 thousand) for, among other things, self-produced internal demonstration and test systems.

6. Other operating income

	2023	2022
	EUR thousand	EUR thousand
Grants and subsidies for research and development costs	2,391	4,238
Income from research incentives	2,578	2,618
Exchange rate differences	755	1,339
Change in the earn-out payment liability	0	402
Changes in the fair value of forward exchange contracts	610	216
Gain from the sale of intangible assets, property, plant and equipment	24	19
Miscellaneous other operating income	1,697	1,682
	8,055	10,514

Grants and subsidies, including research incentives, are recognised in income when the conditions for their granting are fulfilled and the grants have either already been paid or it is reasonably sure that they will be paid.

The miscellaneous other operating income relates mainly to revenue from the reversal of loss allowances and provisions.

7. Cost of materials and purchased services

	2023	2022
	EUR thousand	EUR thousand
Cost of materials	45,172	41,338
Cost of purchased services	59,542	57,912
	104,714	99,250

The cost of materials rose by roughly the same percentage as revenues.

8. Personnel expenses

	2023	2022
	EUR thousand	EUR thousand
Salaries	181,632	162,237
Expenses for severance payments	2,436	2,215
Expenses for pensions	2,815	2,471
Social security contributions	34,508	31,547
Other voluntary social welfare expenses	6,463	5,402
	227,854	203,872

The number of employees at the end of the financial year was 2,318 (2022: 2,116), measured as full-time equivalents (FTE). The average number of employees was 2,217 FTEs (2022: 2,081 FTEs).

The increase in personnel expenses is mainly due to individual and collectively agreed salary rises, the increase in the accrual for holidays not yet taken, and the increase in the number of employees.

9. Other operating expenses

	2023	2022
	EUR thousand	EUR thousand
Travel expenses	12,736	10,687
Other consulting expenses	5,172	5,775
External personnel	4,928	4,514
Advertising	4,356	3,849
Licenses (terms of up to 1 year)	4,242	2,907
Energy	3,353	2,014
Legal and consulting expenses	3,133	2,526
Insurance expenses	2,989	2,527
Exchange rate differences	2,969	2,694
Maintenance	2,494	2,290
Transport	2,148	1,891
Operating expenses (buildings)	1,945	1,472
Staff recruitment	1,714	1,072
Vehicles	1,349	1,159
Telephone and communications expenses	1,266	1,264
Cleaning	1,179	1,015
Change in provisions for projects	1,132	-2,392
Other taxes and levies	912	736
Bank charges and bank guarantee fees	747	903
Short-term leases and leases for low-value assets	676	677
Impairment of receivables and contract assets	464	313
Membership fees	410	371
Translation costs	174	202
Losses from the disposal of intangible assets, property, plant and equipment	21	30
Changes in the fair value of forward exchange contracts	11	94
Miscellaneous	1,911	1,736
	62,431	50,326

The provisions for projects contain project costs for which provisions are recognised due to an excess of estimated future expenses over revenues.

The impairments contain EUR 465 thousand (2022: EUR 308 thousand) for receivables and EUR -1 thousand (2022: EUR 5 thousand) for contract assets. The impairments are not presented separately in the income statement as the amount is insignificant.

10. Depreciation of property, plant and equipment and amortisation of intangible assets

	2023 EUR thousand	2022 EUR thousand
Depreciation of right-of-use assets	8,946	9,066
Depreciation of property, plant and equipment and amortisation of intangible assets	7,586	7,632
Depreciation and amortisation of low-value assets	995	837
	17,527	17,535

Assets with an acquisition or manufacturing cost of up to EUR 1 thousand (country-specific) are defined as low-value assets and are recognised as expenses in the year of acquisition.

11. Financial income

	2023 EUR thousand	2022 EUR thousand
Interest and similar income	946	209
	946	209

The interest and similar income relates exclusively to interest income from assets recognised at amortised cost. Interest income is recognised using the effective interest method.

12. Financial expenses

	2023 EUR thousand	2022 EUR thousand
Interest and similar expenses	1,442	738
	1,442	738

EUR 916 thousand (2022: EUR 412 thousand) of the interest and similar expenses is attributable to IFRS 16. Interest expenses are recognised using the effective interest method.

13. Income taxes

	2023 EUR thousand	2022 EUR thousand
Current income taxes	7,950	6,396
Taxes relating to prior periods	550	75
Non-deductible withholding tax	199	62
Change in deferred tax assets/liabilities	-2,260	-674
	6,439	5,859

The following table presents the reconciliation from the expected tax rate to the effective tax rate:

	2023	2022
	EUR thousand	EUR thousand
Profit/loss before tax	26,419	24,737
Theoretical tax income/expense based on a tax rate of 24% (2022: 25%)	6,341	6,184
Differences in tax rates	253	-171
Tax additions	432	444
Tax deductions	-779	-777
Changes in tax rates	-271	-485
Tax-free income from associated companies	-64	-69
Profit from business combinations	-1	0
Tax assets for which deferred tax assets were not previously recognised	-547	
Tax losses for which no deferred tax assets were recognised	521	699
Realised tax losses for which no deferred tax assets were recognised	-195	-103
Taxes relating to other periods	550	75
Non-deductible withholding tax	199	62
Actual tax expense	6,439	5,859
Effective tax rate	24.4%	23.7%

The tax additions comprise non-tax-deductible expenses such as non-deductible payroll expenses and hospitality expenses. The tax deductions mainly comprise the research incentives.

The effect from the change in tax rates totalling EUR 271 thousand in 2023 (2022: EUR 485 thousand) was attributable to the reduction in the corporation tax rate in Austria from 25% to 24% for 2023 and 23% for financial years from 2024.

The deferred tax assets and liabilities recognised in the statement of financial position relate to the following items:

	Assets	Liabilities	Assets	Liabilities
	2023	2023	2022	2022
	EUR thousand	EUR thousand	EUR thousand	EUR thousand
Property, plant and equipment	246	-9,287	116	-10,605
Intangible assets	349	-3,574	202	-3,563
Goodwill	0	-20	17	
Financial assets	137	-10	173	-4
Inventories	122	-308	81	-570
Contract assets	0	-6,813	94	-6,800
Contract costs		-104		-72
Trade accounts receivable and other assets	26	-1,946	93	-3,606
Provisions	2,616	-1,992	2,276	-897
Trade accounts payable and other liabilities	582	-153	570	-139
Lease liabilities	8,646	0	9,559	0
Contract liabilities	3,166	-299	4,331	-204
Deferred taxes on exchange rate differences, debt consolidation	6	-7	112	-112
Tax loss carryforwards	4,156		3,293	
Total	20,052	-24,513	20,916	-26,572
Netting	-14,435	14,435	-17,131	17,131
Deferred taxes	5,617	-10,078	3,785	-9,441

Deferred tax liabilities resulting from temporary differences in connection with investments in subsidiaries are not recognised if the date of reversal of the temporary differences can be controlled by the Frequentis Group and it is probable that the temporary differences will not be reversed in the near future. Such temporary differences for which no deferred tax liabilities are recognised amounted to EUR 3,771 thousand (2022: EUR 3,768 thousand).

As at the reporting date, the Frequentis Group had loss carryforwards totalling EUR 19,666 thousand (2022: EUR 16,379 thousand). Deferred taxes were recognised for loss carryforwards of EUR 15,008 thousand (2022: EUR 12,539 thousand) because it is probable that there will be future taxable income against which the Frequentis Group can offset the deferred tax assets. There is a 20-year time limit on the use of a tax loss carryforward of EUR 1,736 thousand (2022: EUR 1,408 thousand). The other loss carryforwards will not expire.

The amount of tax-deductible impairments on equity investments that is spread over seven years under Austrian tax law is EUR 499 thousand (2022: EUR 632 thousand). Deferred tax assets of EUR 115 thousand (2022: EUR 147 thousand) were recognised on this amount.

As at 31 December 2023, no material income tax uncertainties existed.

14. Earnings per share

Basic earnings per share are calculated by dividing the result for the period attributable to equity holders of Frequentis AG by the weighted average number of shares outstanding in the reporting period. In the reporting period, the weighted average number of shares was 13,271,909 (2022: 13,268,833).

Diluted earnings per share are calculated by dividing the result for the period attributable to the equity holders of Frequentis AG by the weighted average number of outstanding shares in the reporting period, adjusted in each case by the dilutive effect of the share-based payment of 44,630 shares (2022: 51,370 shares). The average weighted number of shares and options was 13,316,012 (2022: 13,317,764).

Notes to the consolidated statement of financial position

15. Property, plant and equipment

in EUR thousand	Land and buildings and buildings on leased land	Technical plant, and machinery	Technical equipment for operating leases	Other plant, factory and office equipment	Plants under construction	Advances and plants under construction for operating leases	Total
Carrying amount as at 31 December 2021	38,664	786	0	7,884	383	0	47,717
Foreign currency translation difference	205	0	0	43	18	0	266
Reclassification	42	0	0	256	-298	0	0
Additions from business combinations	382	0	0	64	0	0	446
Addition	9,614	142	1,420	5,787	884	801	18,648
Disposal	-117	0	0	-32	0	0	-149
Depreciation	-8,752	-207	-20	-4,651	0	0	-13,630
Carrying amount as at 31 December 2022	40,038	721	1,400	9,351	987	801	53,298
Cost of acquisition/production	75,207	4,537	1,420	36,599	987	801	119,551
Accumulated depreciation	-35,169	-3,816	-20	-27,248	0	0	-66,253
Carrying amount as at 31 December 2022	40,038	721	1,400	9,351	987	801	53,298
Carrying amount as at 31 December 2022	40,038	721	1,400	9,351	987	801	53,298
Foreign currency translation difference	-139	0	-70	-47	-12	0	-268
Reclassification	382	-35	801	654	-1,001	-801	0
Additions from business combinations	14	0	0	166	0	0	180
Addition	5,706	796	2,529	7,262	872	0	17,164
Disposal	-5	0	0	-76	0	0	-81
Depreciation	-8,563	-175	-294	-5,374	0	0	-14,406
Carrying amount as at 31 December 2023	37,433	1,307	4,366	11,936	846	0	55,888
Cost of acquisition/production	79,387	5,179	4,677	40,484	846	0	130,573
Accumulated depreciation	-41,954	-3,872	-311	-28,548	0	0	-74,685
Carrying amount as at 31 December 2023	37,433	1,307	4,366	11,936	846	0	55,888

During 2023, the Frequentis Group concluded agreements for the acquisition of property, plant and equipment totalling EUR 537 thousand (2022: EUR 673 thousand), which will be delivered and invoiced in 2024.

For information on the recognised right-of-use assets resulting from the application of IFRS 16, which are included in the above table, see Note 35. Leases.

16. Intangible assets

in EUR thousand	Software and licences	Customer base	Self-produced intangible assets under development	Advances	Total
Carrying amount as at 31 December 2021	17,692	0	0	25	17,717
Foreign currency translation difference	-6	0	0	0	-6
Reclassification of advances	0	0	0	0	0
Additions from business combinations	3,088	0	0	0	3,088
Addition	620	0	0	94	715
Disposal	-1	0	0	0	-1
Amortisation	-3,905	0	0	0	-3,905
Impairment losses recognised in profit/loss	-3,106	0	0	0	-3,106
Carrying amount as at 31 December 2022	14,382	0	0	119	14,501
Cost of acquisition/production	39,031	0	0	119	39,150
Accumulated amortisation	-24,649	0	0	0	-24,649
Carrying amount as at 31 December 2022	14,382	0	0	119	14,501
Carrying amount as at 31 December 2022	14,382	0	0	119	14,501
Foreign currency translation difference	-190	0	0	0	-190
Reclassification of advances	99	0	0	-99	0
Additions from business combinations	2,257	2,848	0	0	5,105
Addition	840	0	380	0	1,220
Disposal	0	0	0	0	0
Amortisation	-2,938	-184	0	0	-3,122
Carrying amount as at 31 December 2023	14,450	2,664	380	20	17,514
Cost of acquisition/production	41,976	2,848	380	20	45,224
Accumulated amortisation	-27,526	-184	0	0	-27,710
Carrying amount as at 31 December 2023	14,450	2,664	380	20	17,514

The Frequentis Group spent EUR 25.2 million (2022: EUR 26.8 million) on in-house research and development work that was not funded by customers. This was expensed as incurred. Development costs of EUR 380 thousand were capitalised in the reporting period.

During 2023, the Frequentis Group concluded agreements for the acquisition of intangible assets totalling EUR 22 thousand, which will be delivered and invoiced in 2024 (2022: EUR 12 thousand).

17. Goodwill

in EUR thousand	Goodwill
Carrying amount as at 31 December 2021	3,433
Foreign currency translation difference	-11
Additions from business combinations	2,412
Carrying amount as at 31 December 2022	5,834
Cost of acquisition/production	8,636
Accumulated impairment losses	-2,802
Carrying amount as at 31 December 2022	5,834
Carrying amount as at 31 December 2022	5,834
Foreign currency translation difference	145
Additions from business combinations	5,372
Carrying amount as at 31 December 2023	11,351
Cost of acquisition/production	14,153
Accumulated impairment losses	-2,802
Carrying amount as at 31 December 2023	11,351

The accumulated impairment losses include EUR 1,730 thousand relating to the full impairment of the goodwill in ATRICS Advanced Technology Solutions GmbH in 2021 and EUR 1,072 thousand for the partial impairment of the goodwill of Systems Interface Ltd. in 2020.

For the purpose of impairment testing, goodwill has been allocated to the Frequentis Group's cash-generating units (CGUs) as follows:

	31 Dec. 2023 EUR thousand	31 Dec. 2022 EUR thousand
FRAFOS GmbH	1,976	
Frequentis Comsoft GmbH	909	909
Frequentis Orthogon GmbH	2,263	2,263
Business Recording	3,537	
Regola S.r.l.	2,412	2,412
Systems Interface Ltd.	201	197
team Technology Management GmbH	53	53
	11,351	5,834

The Business Recording cash-generating unit is Frequentis' recorder unit, which comprises the Frequentis recording solution DIVOS and Frequentis Recording AS.

Goodwill was tested for impairment when preparing the consolidated financial statements by estimating the recoverable amount of the relevant cash-generating units using discounted cash flows for a three-year detailed planning period and a perpetual annuity derived from this.

The impairment test in accordance with IAS 36 was based on detailed plans for earnings, the statement of financial position, and capital expenditure for the next three years. These are prepared annually as part of the Group-wide budget planning process, taking into consideration the current business situation. For periods after the budget planning period, a long-term growth rate of 1% (2022: 1%) was determined and used to forecast future cash flows.

Forecast future cash flows were discounted using discount rates based on common market and country-specific risks.

	FRAFOS GmbH	Frequentis Comsoft GmbH	Frequentis Orthogon GmbH	Business Recording	Regola S.r.l.	Systems Interface Ltd.	team Technology Management GmbH
Impairment test 2023							
Interest rate (WACC before taxes)	13.26%	11.66%	12.64%	11.55%	16.17%	11.53%	11.08%
Recoverable amount in EUR thousand	5,349	8,100	10,732	27,059	7,155	1,903	7,651
Carrying amount of the CGU including goodwill in EUR thousand	4,784	3,252	7,113	8,236	6,236	548	1,165

	Frequentis Comsoft GmbH	Frequentis Orthogon GmbH	Regola S.r.l.	Systems Interface Ltd.	team Technology Management GmbH
Impairment test 2022					
Interest rate (WACC before taxes)	12.4%	13.70%	16.63%	10.27%	11.44%
Recoverable amount in EUR thousand	9,221	10,862	8,501	644	7,966
Carrying amount of the CGU including goodwill in EUR thousand	8,874	8,533	6,244	-63	2,007

In 2020, an impairment loss was recognised for the goodwill of Systems Interface Ltd. Since the business has stabilised since 2022 and future cash flows also show a stable trend, no additional impairment loss was recognised in either 2022 or 2023. Due to the negative working capital in 2022, Systems Interface Ltd. CGU had a negative carrying amount of EUR -63 thousand in this year. In 2023, working capital was positive, so the CGU had a positive carrying amount of EUR 548 thousand.

FRAFOS GmbH was initially included in Frequentis' consolidated financial statements from the closing of the transaction in April 2023. As a result, a purchase price allocation was performed and no significant changes in the planning assumptions had been identified by the reporting date.

To illustrate the effect of changes in the parameters, sensitivity analyses were performed. The following table shows the percentage by which the cash flows would have to be reduced or the discount rates increased for the carrying amounts of the cash-generating units, including goodwill, to correspond to the recoverable amount.

	FRAFOS GmbH	Frequentis Orthogon GmbH	Regola S.r.l.
Sensitivity analysis 2023			
Reduction in cash flows	9.6%	30.8%	12.1%
Increase in discount rates	1.1 PP	4.6 PP	1.9 PP

As at the reporting date, the Executive Board did not identify any realistic scenarios for Frequentis Comsoft GmbH, Systems Interface Ltd., team Technology Management GmbH or Business Recording that would result in impairment of goodwill.

Discount rate: The discount rate applied is the weighted average cost of capital (WACC). The discount rate does not reflect the risks underlying the adjustments to the estimated cash flow. The discount rate is an interest rate after taxes based on the interest rate on 30-year government bonds, taking into account common market and country-specific risks. This is converted into a WACC before taxes.

18. Investments accounted for at equity (associated companies)

	31 Dec. 2023 EUR thousand	31 Dec. 2022 EUR thousand
Investments accounted for at equity	2,903	2,097

Name of associated company	Registered office	Voting rights and shareholding	
		as at 31 Dec. 2023	as at 31 Dec. 2022
Flyk Oy	Valkeakoski	25%	25%
GroupEAD Europe S.L.	Madrid	28%	28%
Mission Embedded GmbH	Vienna	20%	20%
Nemergent Solutions S.L.	Bilbao	24.83%	15%
AIRNAV Technology Services Inc.	Iloilo	65%	40%
AIRlabs Austria GmbH	Graz	18%	18%
		50%	50%
AMANTEA Ltd.	Zabbar	(effective shareholding 25.5%)	(effective shareholding 25.5%)
		24%	24%
Lift S.r.l.	Cagliari	(effective shareholding 10.2%)	(effective shareholding 10.2%)
		20%	20%
Nowtech S.r.l.	Sassari	(effective shareholding 10.2%)	(effective shareholding 10.2%)

The reporting date for all associated companies is 31 December and they are all accounted for by applying the equity method of accounting. There were neither any unrealised losses nor any significant restrictions on the repayment of loans.

The increase in the interest in AIRNAV Technology Services Inc., (registered office: Iloilo, Philippines) from 40% to 65% was successfully completed on 20 February 2023. As a result, this company became a fully consolidated subsidiary (see Note 1. Changes in the consolidated group).

Since Frequentis no longer delegates a managing director for AIRlabs Austria GmbH (18% interest) and has thus relinquished its significant influence, this company is no longer accounted for by applying the equity method of accounting; it is now presented as an equity instrument.

The Frequentis Group holds 28% of the shares and voting rights in **GroupEAD Europe S.L.**, Madrid. The carrying amount of this investment developed as follows (based on the most recent available financial statements for 2022 and the dividends already received for 2023):

		2023	2022
		EUR thousand	EUR thousand
31 Dec. prior year	Equity investment in GroupEAD Europe S.L.	491	491
	Attributable profit in prior year	156	58
	Less dividend paid for the prior year	-156	-58
	Provisional attributable profit in the reporting period	56	56
	Less dividend paid in the reporting period	-56	-56
31 Dec. reporting period	Equity investment in GroupEAD Europe S.L.	491	491

GroupEAD Europe S.L. acts as operational manager of the EAD system on behalf of EUROCONTROL. The EAD system was developed by the Frequentis Group, which is responsible for technical operation. The close relationship between the technical and operational managers has a positive impact on the quality of service and the customer relationship. In addition, the Frequentis Group is able to use the experience and operational expertise of GroupEAD Europe S.L. in the ongoing development of the EAD system and to develop other AIM systems for the international market.

The next table contains summarised financial information on this company as at the last reporting date (31 December 2022):

	31 Dec. 2022	31 Dec. 2021
	EUR thousand	EUR thousand
GroupEAD Europe S.L.		
Non-current assets	365	301
Current assets	3,277	2,779
Non-current liabilities	0	0
Current liabilities	1,332	1,119
Net assets (100%)	2,310	1,961
Frequentis Group's share of net assets (28%)	647	549
Dividend paid in the following year	-156	-58
Carrying amount of the stake in the associated company	491	491
Revenues	7,862	7,127
Profit from continuing operations (100%)	758	409
Other comprehensive income (100%)	0	0
Total comprehensive income (100%)	758	409
Total comprehensive income (28%)	212	114
Earnings included in the prior year (28%)	-56	-56
Share of earnings for the following year included due to dividends received (28%)	56	56
Frequentis Group's share of total comprehensive income	212	114

The Frequentis Group holds 20% of the shares and voting rights in **Mission Embedded GmbH**, Vienna. The development of this investment is presented below:

		2023	2022
		EUR thousand	EUR thousand
31 Dec. prior year	Equity investment in Mission Embedded GmbH	482	362
	Attributable profit/loss in the reporting period	58	116
	Actuarial losses in accordance with IAS 19	-2	4
31 Dec. reporting period	Equity investment in Mission Embedded GmbH	538	482

Mission Embedded GmbH was created by the spin-off of the "Mission Embedded" department in 2014 to drive forward the positive development of Frequentis' expertise in hardware and hardware-related software for safety-critical applications by giving it greater independence.

The next table contains summarised financial information on this company as at the last reporting date (31 December 2023):

Mission Embedded GmbH	31 Dec. 2023	31 Dec. 2022
	EUR thousand	EUR thousand
Non-current assets	366	412
Current assets	7,534	6,577
Non-current liabilities	190	275
Current liabilities	5,018	4,302
Net assets (100%)	2,692	2,412
Frequentis Group's share of net assets (20%)	538	482
Carrying amount of the stake in the associated company	538	482
Revenues	9,563	8,766
Profit from continuing operations (100%)	290	580
Other comprehensive income (100%)	-12	22
Total comprehensive income (100%)	278	602
Frequentis Group's share of the profit from continuing operations (20%)	58	116
Frequentis Group's share of other comprehensive income (20%)	-2	4
Frequentis Group's share of total comprehensive income (20%)	56	120

In 2020, the Frequentis Group acquired a 15% interest in **Nemergent Solutions S.L.**, which has its registered office in Bilbao, Spain. The interest was acquired through Frequentis Invest4Tech GmbH (a wholly owned subsidiary of Frequentis AG). On 19 December 2023, the interest in Nemergent Solutions S.L. was increased to 24.83% through a capital increase.

Nemergent Solutions S.L. is a technology provider with high expertise in 3GPP standard-based mission-critical solutions over mobile broadband technologies. The Frequentis Group had previously worked on joint projects in the field of public transport and public safety, where Nemergent Solutions contributed technology for application services and mobile end devices for emergency services. This collaboration was strategically expanded and deepened because the LTE mobile communications standard offers new opportunities in safety-critical broadband communication.

The table shows the development of this investment:

		2023	2022
		EUR thousand	EUR thousand
31 Dec. prior year	Equity investment in Nemergent Solutions S.L.	747	731
	Attributable loss (profit) in the reporting period	-36	16
	Purchase price for increase in the investment	836	0
31 Dec. reporting period	Equity investment in Nemergent Solutions S.L.	1,547	747

The next table contains summarised financial information on this company as at the last reporting date (31 December 2023):

	31 Dec. 2023	31 Dec. 2022
	EUR thousand	EUR thousand
Nemergent Solutions S.L.		
Non-current assets	1,606	1,359
Current assets	1,397	1,034
Non-current liabilities	593	543
Current liabilities	212	249
Net assets (100%)	2,198	1,601
Frequentis Group's share of net assets (24.83%)	546	240
Goodwill	1,001	507
Carrying amount of the stake in the associated company	1,547	747
Revenues	772	1,036
Profit from continuing operations (100%)	-239	106
Other comprehensive income (100%)	0	0
Total comprehensive income (100%)	-239	106
Frequentis Group's share of the profit from continuing operations (15%)	-36	16
Frequentis Group's share of other comprehensive income (15%)	0	0
Frequentis Group's share of total comprehensive income (15%)	-36	16

On 1 September 2022, the Frequentis Group acquired a 25% interest in Aviamaps Oy, which has its registered office in Valkeakoski, Finland. This company was renamed **Flyk Oy** in 2023.

Flyk produces software for drone flight planning and airspace management and offers a real-time aviation maps platform for drone flights. Its software is integrated into the Frequentis solution for automatic approval of drone flights in Austria.

The table shows the development of this investment:

		2023	2022
		EUR thousand	EUR thousand
31 Dec. prior year	Equity investment in Flyk Oy	140	
	Purchase price		125
	Correction of attributable profit in the prior year	-3	
	Attributable profit in the reporting period	4	15
31 Dec. reporting period	Equity investment in Flyk Oy	141	140

The acquisition of the 51% interest in Regola S.r.l. in 2022 included the acquisition of interests in associated companies. The interests in these equity investments – AMANTEA Ltd., Lift S.r.l., and Nowtech S.r.l. – developed as follows:

		2023	2022
		EUR thousand	EUR thousand
31 Dec. prior year	Equity investments in AMANTEA Ltd., Lift S.r.l., and Nowtech S.r.l.	165	
	Acquisition of Regola S.r.l.		152
	Attributable profit/loss in the reporting period	22	13
31 Dec. reporting period	Equity investments in AMANTEA Ltd., Lift S.r.l., and Nowtech S.r.l.	187	165

Since these companies are not significant associated companies, the following table presents the key financial data in aggregated form for Flyk Oy, Lift S.r.l., and Nowtech S.r.l. as at the most recent reporting date (31 December 2023). Since the financial data for AMANTEA Ltd. as at 31 December 2023 were not available in time, the data from the latest available financial statements (as at December 31, 2022) are included in the table in the column as at 31 December 2023 and no data for this company are included in the table in the column as at December 31, 2022:

	31 Dec. 2023 EUR thousand	31 Dec. 2022 EUR thousand
Non-current assets	336	332
Current assets	752	619
Non-current liabilities	163	203
Current liabilities	571	437
Net assets (100%)	353	312
Frequentis Group's share of net assets	86	64
Goodwill	242	242
Carrying amount of the stake in the associated company	328	306
Revenues	1,043	520
Profit from continuing operations (100%)	91	115
Other comprehensive income (100%)	0	0
Total comprehensive income (100%)	91	115
Frequentis Group's share of the profit from continuing operations	26	28
Frequentis Group's share of other comprehensive income	0	0
Frequentis Group's share of total comprehensive income	26	28

From the annual profit of all associated companies accounted for at equity, a proportionate share of EUR 268 thousand (2022: EUR 275 thousand) is recognised. In the reporting period, proportionate losses of EUR 15 thousand (2002: EUR 0 thousand) at AMANTEA Ltd. were not recognised because this equity investment was measured at zero when it was initially included in the consolidated financial statements in 2022.

19. Inventories

	31 Dec. 2023 EUR thousand	31 Dec. 2022 EUR thousand
Raw materials and supplies	19,405	15,407
Work in progress	770	948
Finished goods	1,918	2,277
Merchandise	3,145	2,370
Advance payments made	1,390	724
	26,628	21,726

The increase in raw materials and supplies was mainly due to increased stocking of electronic components to ensure an adequate safety net to meet long-standing delivery and maintenance obligations despite the withdrawal of products by producers and supply bottlenecks.

Work in progress mainly comprises assemblies that were still being processed at the reporting date.

The finished goods are assemblies that are part of overall solutions for customers and can only be invoiced as distinct components of a contract with a customer in exceptional cases. The inventories result from optimisation of manufacturing batches (larger production batches reduce unit costs) and procurement lots, as well as the management of a safety stock for maintenance obligations.

Merchandise comprises assets, mainly for use in future customer projects.

The impairment loss on inventories was EUR 634 thousand in 2023 (2022: EUR 346 thousand). Reversals of EUR 35 thousand were recognised in 2023 (2022: EUR 445 thousand).

20. Trade accounts receivable

	2023 EUR thousand	2022 EUR thousand
Trade accounts receivable, gross	82,129	78,322
Individual loss allowances	-729	-931
Loss allowances pursuant to IFRS 9	-374	-403
Receivables from affiliated companies	3	2
Total trade accounts receivable, net	81,029	76,990

The trade accounts receivable as at 31 December 2023 include EUR 766 thousand resulting from business combinations.

Trade accounts receivable contain non-current items of EUR 365 thousand (31 December 2022: EUR 729 thousand) that have to be recognised as current items pursuant to IAS 1.68.

Trade accounts receivable are not interest-bearing and are generally due within 30 days.

Since most of the Frequentis Group's customers are public authorities, government-related businesses or, in the case of general contractors, large international companies, the credit risk is classified as low. One aspect of risk management at the Frequentis Group is that business relationships are only entered into with third parties that are deemed to be creditworthy. The creditworthiness of customers is systematically evaluated and deliveries are only made if they have appropriate credit standing or if adequate steps are taken to address the risks identified.

If a higher risk is identified during the proposal process, advances by customers or letters of credit are used to reduce the credit risk.

All identifiable risks are taken into account by appropriate loss allowances. In the event of default, the receivables are derecognised.

The Frequentis Group uses a loss allowance matrix to measure the expected credit losses (ECLs) on trade accounts receivable. The loss rates are calculated using a "roll-rate" method, which is based on the probability that a receivable will roll through successive stages of delinquency up to derecognition. The roll-rate analysis is performed for the aggregated amount of receivables. The loss rates are based on actual payment and credit loss experience in the past ten years.

The table shows the development of the loss allowance for trade accounts receivable:

	2023 EUR thousand	2022 EUR thousand
As at 31 December of the previous year	1,334	1,548
Foreign currency translation	-3	-14
Change in loss allowances pursuant to IFRS 9	-28	-1
Additions	481	293
Utilisation	-9	-195
Reversal	-672	-297
As at 31 December of the financial year	1,103	1,334

As at 31 December 2023, the loss rate of trade accounts receivable was as follows:

	Weighted average loss rate 2023	Weighted average loss rate 2022	2023 EUR thousand	2022 EUR thousand
Trade accounts receivable, net			81,026	76,988
of which: neither overdue nor impaired	0.03%	0.05%	63,709	54,574
of which, overdue but not impaired				
Up to 30 days	0.06%	0.16%	11,128	17,170
30-60 days	0.50%	0.70%	2,797	2,187
60-90 days	1.32%	0.61%	629	999
90-180 days	2.81%	4.29%	868	827
180-210 days	1.94%	7.24%	912	93
> 210 days	20.20%	19.33%	983	1,138

Due to their insignificance, receivables from affiliated companies in the amount of EUR 3 thousand (2022: EUR 2 thousand) are not included in the presentation of the structure of overdue trade accounts receivable.

The Frequentis Group's experience with public sector customers shows that the payment date often deviates from the due date. This is frequently due to approval processes and budget procedures within the authorities (especially around year-end). Past experience shows that such payment delays do not in themselves indicate a higher risk of default.

Since most customers are in the public sector or are large international companies, there were no significant defaults on receivables in the reporting period. In view of its customer structure, the Frequentis Group does not expect the credit risk to increase. However, since an increase in insolvencies is expected in 2024 and subsequent years, it has defined a scale factor of 1.5, which is taken into consideration when calculating loss allowances pursuant to IFRS 9. This reflects the actual and forecast insolvency rates due to the economic consequences of the war in Ukraine.

21. Contract assets

	31 Dec. 2023 EUR thousand	31 Dec. 2022 EUR thousand
Contract assets, gross	98,154	85,364
Loss allowances pursuant to IFRS 9	-19	-19
Total contract assets	98,135	85,345
Advances from customers	-36,863	-34,870
	61,272	50,475

The contract assets mainly result from performance obligations already satisfied by the Group but not yet invoiced. Contract assets are reclassified to trade accounts receivable when there is an unconditional right to receive consideration. This is normally the case when the Group issues an invoice for the goods and services provided.

The contract assets of EUR 50,475 thousand recognised as at 1 January (2022: EUR 38,353 thousand) include EUR 43,085 thousand (2022: EUR 32,055 thousand) that were invoiced in the reporting period.

Of the total contract assets of EUR 61,272 thousand as at 31 December 2023 (2022: EUR 50,475 thousand), it is expected that EUR 49,143 thousand (2022: EUR 41,161 thousand) will be charged to customers in the following year – based on expected project progress and contractual clauses. Contract assets with a carrying amount of EUR 12,129 thousand (2022: EUR 9,314 thousand) are not expected to be invoiced until after 2024. Since realisation of the contract assets is expected to take place within the operating cycle, all contract assets are classified as current.

It is assumed that there are no relevant default risks for contract assets. The loss allowance for contract assets was EUR 19 thousand in 2023 (2022: EUR 19 thousand). In the case of orders for which the Group makes advance payments, the creditworthiness of customers is carefully reviewed. These orders primarily relate to work for public authorities or major international companies.

Based on the sensitivity analysis, a 10% reduction in contract costs not yet incurred would increase contract assets by EUR 9,037 thousand (2022: EUR 6,516 thousand), while a 10% increase in contract costs not yet incurred would reduce contract assets by EUR 6,375 thousand (2022: EUR 5,966 thousand).

22. Contract costs

In the Frequentis Group, contract costs mainly comprise sales commission. These contract costs are recognised and amortised in line with the transfer of control over goods and services to the customer.

The development of the contract costs recognised is as follows:

	2023 EUR thousand	2022 EUR thousand
As at 1 January	4,024	3,711
Contract costs recognised in the reporting period	1,368	3,480
Amortisation in the reporting period	-2,984	-3,146
Impairment losses	-14	-21
As at 31 December	2,394	4,024

The amortisation expense for contract costs in the next 12 months is expected to amount to EUR 1,664 thousand (2022: EUR 3,148 thousand). Since the contract costs are expected to be incurred within an operating cycle, all contract costs are classified as current.

The Frequentis Group uses the practical expedient of recognising contract costs as an expense if the amortisation period is less than one year.

The amortisation expense for capitalised contract costs is recognised in the cost of materials and purchased services.

23. Other assets

	31 Dec. 2023 EUR thousand	31 Dec. 2022 EUR thousand
Pension reinsurance	454	610
Equity instruments	22	0
Other financial assets	220	275
Other non-current financial assets	696	885
Receivables from grants and subsidies	1,925	1,860
Positive fair value of cash flow hedges and MTM valuation	728	661
Other financial assets	604	238
Other current financial assets	3,257	2,759
Prepaid expenses and deferred charges	7,293	5,869
Receivables from research grants and incentives	5,896	3,569
Receivables from fiscal authorities (excluding income taxes)	1,691	1,508
Receivables from investment grants	0	152
Other assets	322	262
Other current non-financial assets	15,202	11,360

24. Cash and cash equivalents

	31 Dec. 2023 EUR thousand	31 Dec. 2022 EUR thousand
Cash and cash equivalents	86,998	94,198
Loss allowances	-12,818	-12,818
	74,180	81,380

The cash and cash equivalents comprise investments and bank deposits, all of which are short-term and have an original term of up to three months. The carrying amount of these assets corresponds to their fair value. All components of cash and cash equivalents are freely available to the company.

The loss allowances comprise the total amount of the deposit due on demand at Commerzialbank Mattersburg, for which an impairment loss had to be recognised in 2020, with the exception of the EUR 100 thousand covered and paid out by the deposit insurance.

In accordance with IFRS 9, based on the expected credit loss (ECL) model, loss allowances were established at the date of recognition of the bank deposits on the basis of the expected potential credit losses. No loss allowances had to be recognised for bank balances – with the exception of those at Commerzialbank Mattersburg – due to good ratings and the short-term nature of the deposits (due on demand).

More than two-thirds of the cash and cash equivalents (including time deposits) of EUR 84,680 thousand as at 31 December 2023 was deposited with eleven system-relevant major banks in Austria and Germany. Around one-third was deposited with approximately 25 other banks in Europe, Australia, Asia, and the Americas.

25. Share capital and retained earnings

At the Annual General Meeting on 1 June 2023, the Executive Board was authorised, subject to the approval of the Supervisory Board, to increase the share capital of Frequentis AG by up to EUR 6.64 million up to 31 May 2028 by issuing up to 6.64 million new no-par-value bearer shares in return for cash or contributions in kind, in one or more tranches, or through a direct subscription offer following acceptance by one or more banks in accordance with Section 153 (6) of the Austrian Companies Act (AktG). The Executive Board was also authorised, subject to the approval of the Supervisory Board, to fully or partially exclude shareholders' subscription rights and, subject to the approval of the Supervisory Board, to define further details of the issue conditions (especially the issue price, type of contribution in kind, rights of the shares, exclusion of subscription rights, etc.) (authorised capital).

Treasury shares

At the Extraordinary General Meeting of Frequentis AG on 20 September 2019, the Executive Board was authorised, pursuant to Section 65 (1b) AktG, for a period of five years from the date of the resolution, therefore up to and including 19 September 2024, with the consent of the Supervisory Board but without a further resolution by the General Meeting to sell or use treasury shares, also in a manner other than by sale on the stock exchange or by means of a public offer, in particular to sell or use treasury shares

- a) to grant treasury shares to employees, senior managers, and/or members of the Executive Board or the managing boards of its affiliates, including for purposes of share transfer programmes, in particular stock options, long-term incentive plans, and other stock ownership plans,
- b) to deliver treasury shares under convertible bonds issued by Frequentis AG,
- c) as consideration for the acquisition of entities, business operations, parts of business operations or shares in one or several domestic or foreign companies, and
- d) for any other legally permissible purpose

and to exclude the subscription rights of shareholders. This authorisation may be exercised in full or in part or in several tranches and for several purposes.

At the Annual General Meeting of Frequentis AG on 2 June 2022, the Executive Board was authorised, for a period of 30 months, to purchase shares in Frequentis AG pursuant to Section 65 (1) subsections 4 and 8 of the Austrian Companies Act (AktG), both via the stock market and outside the stock exchange, and to exclude the general selling possibilities of shareholders related to such purchase. Furthermore, the Executive Board was authorised to reduce the share capital by cancelling shares in Frequentis AG without a further resolution of the General Meeting.

With the approval of the Supervisory Board, in May 2022 and May 2023 the Executive Board passed a resolution to transfer to the Chairman of the Executive Board 6,590 treasury shares for the achievement of the targets for the LTIP 2019 and 7,925 treasury shares for the achievement of the targets for the LTIP 2020, under exclusion of the subscription rights of existing shareholders.

On 17 August 2023, the Executive Board of Frequentis AG decided to undertake a share buyback in accordance with Section 65 (1) subsections 4 and 8 of the Austrian Companies Act (AktG) on the basis of the authorisation of the Annual General Meeting of 2 June 2022. A total of 17,500 shares with a total value of EUR 520 thousand (including incidental expenses) were repurchased. The share buyback programme ended on 13 November 2023.

As at 31 December 2023, Frequentis held 18,485 treasury shares (31 December 2022: 8,910). That was 0.1392% of the share capital.

The total number of issued shares was 13,280,000 (2022: 13,280,000).

At year-end 2023, the shareholder structure of Frequentis AG was as follows:

Johannes Bardach has a shareholding of approximately 68% (approximately 8% held directly and 60% held indirectly via Frequentis Group Holding GmbH), B&C Holding Österreich GmbH holds more than 10% of the shares, and the free float is around 22%. The shareholder structure is basically unchanged compared with the previous year.

The development of shareholders' equity is presented in the consolidated statement of changes in shareholders' equity.

Dividend

The net profit of Frequentis AG stated in the individual financial statements as at 31 December 2023 is EUR 16,601 thousand (31 December 2022: EUR 18,953 thousand) and the accumulated profit is EUR 75,552 thousand (31 December 2022: EUR 62,361 thousand).

The Annual General Meeting of Frequentis AG on 1 June 2023 passed a resolution to pay a dividend of EUR 0.22 per no-par-value share entitled to the dividend for the 2022 financial year. The dividend less statutory capital gains tax of 27.5% was paid in June 2023.

In 2023, a dividend of EUR 2,921 thousand (EUR 0.22 per share) was distributed for the 2022 financial year (2022 for 2021: EUR 2,654 thousand / EUR 0.20 per share).

26. Reserves

The following table presents the expenses and income and the related tax liability recognised in other comprehensive income:

Item	Amount		Amount	Amount		Amount
	before	Income	after	before	Income	after
	income	taxes	income	income	taxes	income
	taxes	2023	taxes	taxes	2022	taxes
	EUR	EUR	EUR	EUR	EUR	EUR
	thousand	thousand	thousand	thousand	thousand	thousand
Foreign currency translation	-484	0	-484	284	0	284
Measurement of cash flow hedges	164	-39	125	297	-76	221
Remeasurement of post-employment benefits						
	-1,357	322	-1,035	4,020	-1,176	2,844
Investments accounted for at equity – amounts recognised in other comprehensive income	-2	0	-2	4	0	4
			-1,396			3,353

27. Share-based payment

Frequentis AG agreed long-term incentive plans with the Chairman of the Executive Board, Mr. Norbert Haslachner, in 2020, 2021, 2022, and 2023 (LTIP 2020, LTIP 2021, LTIP 2022, and LTIP 2023).

The share-based payment is measured in accordance with IFRS 2 at fair value on the grant date. The expense is allocated over the required vesting period. Since the agreements stipulate that the shares awarded under the LTIP cannot be settled in cash, the share-based payment is recognised in a separate item of equity.

The participant in the plans is not required to make a personal investment in Frequentis AG shares. From the grant date, in each calendar year the beneficiary can sell a maximum of one third of the shares awarded under the LTIPs. However, the beneficiary may only sell the number of shares awarded under the current LTIPs or any subsequent long-term incentive plan if, at all times, he holds at least 7,000 of the shares awarded under a long-term incentive plan (“minimum shareholding”).

The service period for the fulfilment of the targets has been set at three years. The targets for the key indicators were set by the Supervisory Board. On the settlement date (at the earliest three years after the grant date), a maximum of 17,000 shares for the LTIP 2020 and 2021 and a maximum of 18,000 shares for the LTIP 2022 and 2023 (gross, i.e., before deduction of taxes and fees) but no more than 200% of the beneficiary’s annual gross base salary will be granted if the targets are fully achieved. Settlement is effected by transferring the number of shares corresponding to the net amount of the award to the respective securities account.

The entitlement to the maximum number of shares arises at 100% target achievement. A lower target achievement level will result in a proportionate reduction in the entitlement. No shares will be allocated if target achievement is less than 50%.

In order to qualify for the allocation of shares in the company, targets must be achieved. The achievement of the targets for each of the plans is measured over a three-year performance period.

The following table summarises the main conditions for the share-based payment granted in the reporting period (the LTIP 2020 ended in the reporting period):

	LTIP 2023	LTIP 2022	LTIP 2021	LTIP 2020
Beginning of the plan	1 Jan. 2023	1 Jan. 2022	1 Jan. 2021	1 Jan. 2020
Date of approval by General Meeting	1 June 2023	2 June 2022	20 May 2021	14 May 2020
Grant date	1 June 2023	2 June 2022	15 June 2021	14 May 2020
End of service period	31 Dec. 2025	31 Dec. 2024	31 Dec. 2023	31 Dec. 2022
Vesting date	30 Apr. 2026	30 Apr. 2025	30 Apr. 2024	30 Apr. 2023
Expected target achievement	86.5%	67%	119%	100%
Expected no. of shares	15,570	12,060	17,000	17,000
Maximum no. of shares	18,000	18,000	17,000	17,000
Bonus shares allocated	None	None	None	None

The agreed targets are measured against the following performance indicators:

LTIP 2023	LTIP 2022	LTIP 2021	LTIP 2020
Total shareholder return (TSR)	Total shareholder return (TSR)	Total shareholder return (TSR)	Total shareholder return (TSR)
Orders on hand / book-to-bill ratio	Revenue growth	Increase in operating performance through key accounts	Orders on hand
Order intake at selected Group companies	Earnings increase	Growth through new business development	Growth in the regions
Growth in operating performance in the Public Safety & Transport segment	Employee satisfaction		Growth through acquisitions
Trainee programmes in the areas of sales, project management, and/or systems engineering			

In May 2023, the targets set for the LTIP 2020 were evaluated for the performance period from 1 January 2020 to 31 December 2022 and it was established that they had been fully met, so 17,000 treasury shares (gross number of shares before taxes) were to be transferred to the Chairman of the Executive Board. Taking into consideration the tax to be withheld, 7,925 treasury shares were transferred in this context.

Of the expected total future expense relating to the LTIPs, the portion already earned as at the reporting date is recognised in shareholders' equity. This is based on the fair value on the grant date. The total expected expense for the LTIP obligation is measured at the fair value of the share relative to the share price on the date of the agreement, multiplied by the number of shares granted and the expected target achievement. In the reporting period, EUR 389 thousand (2022: EUR 427 thousand) including payroll-related costs was recognised in personnel expenses in the consolidated statement of comprehensive income and in shareholders' equity for the LTIPs.

For the LTIPs, it is assumed that both the market-oriented targets and the non-market-oriented targets will be achieved so the effect of the market-oriented targets must be reflected in the expected level of target achievement and not in the fair value of the shares.

28. Non-controlling interests

The non-controlling interests relate to the following subsidiaries:

	31 Dec. 2023 EUR thousand	31 Dec. 2022 EUR thousand
AIRNAV Technology Services Inc., Iloilo	63	-
ATRICS Advanced Traffic Solutions GmbH, Freiburg	-156	132
ELARA Leitstellentechnik GmbH, Aachen	0	0
FRAFOS GmbH, Berlin	262	-
FRAFOS CZ s.r.o., Prague	6	-
Frequentis DFS Aerosense GmbH, Vienna	162	135
Regola S.r.l., Turin	0	0
Secure Service Provision GmbH, Leipzig	-	472
Systems Interface Ltd., Bordon	0	-432
team Technology Management GmbH, Vienna	1,599	1,766
TEAM Technology Management GmbH, Gräfelfing	221	151
	2,157	2,224

Due to the put options of the non-controlling shareholders in ELARA Leitstellentechnik GmbH, FRAFOS GmbH, Regola S.r.l., and Systems Interface Ltd., the corresponding interests are recognized as financial liabilities.

team Technology Management GmbH distributed a proportionate dividend of EUR 735 thousand to non-controlling shareholders in the reporting period, Secure Service Provision GmbH distributed a proportionate dividend of EUR 61 thousand, and ELARA Leitstellentechnik distributed a proportionate dividend of EUR 407 thousand.

The following table provides information on the statement of financial position of consolidated subsidiaries with significant non-controlling interests and the carrying amount of the non-controlling interests (amounts stated in EUR thousand, before intragroup eliminations):

Statement of financial position as at 31 December 2023	Non- current assets*)	Current assets	Non- current liabilities	Current liabilities	Net assets	Carrying amount of non- controlling interests
AIRNAV Technology Services Inc.	93	204	5	113	179	63
ATRICS Advanced Traffic Solutions GmbH	102	1,250	232	1,439	-319	-156
ELARA Leitstellentechnik GmbH	375	1,369	48	447	1,250	0
FRAFOS GmbH, Berlin	2,609	2,262	1,108	771	2,992	262
FRAFOS CZ s.r.o., Prague	29	62	0	65	26	6
Frequentis DFS Aerosense GmbH	3	5,709	5,172	0	540	162
Regola S.r.l.	3,379	4,162	1,355	2,082	4,104	0
Systems Interface Ltd.	211	1,861	1,372	755	-56	0
team Technology Management GmbH	933	6,002	687	2,882	3,366	1,599
TEAM Technology Management GmbH	40	731	20	452	299	221
						2,157

*) excluding goodwill

Statement of financial position as at 31 December 2022	Non- current assets*)	Current assets	Non- current liabilities	Current liabilities	Net assets	Carrying amount of non- controlling interests
ATRiCS Advanced Traffic Solutions GmbH	385	1,106	179	1,043	269	132
ELARA Leitstellentechnik GmbH	393	1,410	142	498	1,163	0
Frequentis DFS Aerosense GmbH	4	3,628	2	3,181	449	135
Regola S.r.l.	3,344	3,853	1,484	1,837	3,876	0
Secure Service Provision GmbH	194	2,407	85	155	2,361	472
Systems Interface Ltd.	34	1,835	1,317	1,434	-882	-432
team Technology Management GmbH	979	5,033	728	1,576	3,707	1,766
TEAM Technology Management GmbH	12	491	1	298	204	151
						2,224

*) excluding goodwill

The following table provides information on the income statement and statement of comprehensive income of the consolidated subsidiaries with significant non-controlling interests (in EUR thousand):

	Amounts before intragroup elimination				Earnings attributable to non-controlling interests		
	Operating performance	Profit for the period	Other comprehensive income	Total comprehensive income	Profit for the period	Other comprehensive income	Total comprehensive income
2023							
AIRNAV Technology Services Inc.*)	858	33	0	33	12	-2	10
ATRiCS Advanced Traffic Solutions GmbH	2,360	-587	0	-587	-288	0	-288
ELARA Leitstellentechnik GmbH	5,177	919	0	919	450	0	450
FRAFOS GmbH, Berlin*)	2,062	391	0	391	91	0	91
FRAFOS CZ s.r.o., Prague*)	346	7	0	7	2	0	2
Frequentis DFS Aerosense GmbH	4,142	92	0	92	28	0	28
Regola S.r.l.	5,374	281	-53	228	138	-26	112
Secure Service Provision GmbH**)	1,952	401	0	401	80	0	80
Systems Interface Ltd.	5,558	846	0	846	414	-9	405
team Technology Management GmbH	10,798	1,158	1	1,159	567	0	567
TEAM Technology Management GmbH	2,300	94	0	94	70	0	70
Total					1,564	- 37	1,527

*) Pro rata amounts from 20 February 2023 (AIRNAV) and 3 April 2023 (FRAFOS and FRAFOS CZ)

**) Pro rata amounts until 2 July 2023

	Amounts before intragroup elimination				Earnings attributable to non-controlling interests		
	Operating performance	Profit for the period	Other comprehensive income	Total comprehensive income	Profit for the period	Other comprehensive income	Total comprehensive income
2022							
ATRiCS Advanced Traffic Solutions GmbH	1,265	-3,253	0	-3,253	-1,594	0	-1,594
ELARA Leitstellentechnik GmbH	4,274	831	0	831	407	0	407
Frequentis DFS Aerosense GmbH	5,737	133	0	133	40	0	40
Regola S.r.l.	10,115	712	162	874	349	79	428
Secure Service Provision GmbH	3,362	614	0	614	123	0	123
Systems Interface Ltd.	4,207	295	0	295	144	27	171
team Technology Management GmbH	9,924	1,130	16	1,146	554	8	562
TEAM Technology Management GmbH	1,148	178	0	178	132	0	132
Total					155	114	269

29. Non-current provisions

	31 Dec. 2023 EUR thousand	31 Dec. 2022 EUR thousand
Provisions for severance payments	16,609	14,529
Provisions for pensions	4,599	4,356
Less pension insurance scheme	-2,645	-2,365
	1,954	1,991
Provisions for anniversary bonuses	295	302
Other provisions	807	441
Total non-current provisions	19,665	17,263

Since the life insurance policies are pledged to cover pension obligations, the corresponding amount accumulated in the pension insurance scheme is offset against the pension provisions.

Provisions for severance payments

This item mainly comprises claims by employees in Austria to one-off severance payments on the basis of statutory regulations and collective agreements. These payments may arise due to dismissal by the employer, termination of the employment contract by mutual consent, retirement or death of the employee. The level of the severance payment depends on the number of years of service with the Frequentis Group and the remuneration applicable when the employee leaves the Group.

The corresponding severance payments will result in outflows between 2024 and 2047.

Obligations for severance payments were measured using the following parameters:

	2023	2022
Interest rate	3.5%	4.14%
Wage and salary trend	4.6%	4.6%
Average term of the defined benefit obligation	9.41 years	9.88 years

The following table provides the reconciliation of the severance payment obligations from the opening to the closing balance for the reporting period:

	2023 EUR thousand	2022 EUR thousand
Present value of severance payment obligations (DBO) as at 1 January = provisions as at 1 January	14,529	16,110
Foreign currency translation	-2	3
Additions from business combinations	0	816
Current service cost (CSC)	689	839
Interest cost (IC)	587	173
Actual payments made	-301	-659
Recognised actuarial loss (+)/gain (-)	1,107	-2,753
Present value of severance payment obligations (DBO) as at 31 December = provisions as at 31 December	16,609	14,529

The provisions for severance payments relate mainly to employees who joined the Austrian companies in the Frequentis Group before 31 December 2002 as a change in Austrian law led to a switch from defined benefit to defined contribution severance payments on 1 January 2003. The new regulation applies to employees who took up employment with the Group after 31 December 2002. For these employees, the Group pays a monthly contribution to an external post-employment benefit plan which has to guarantee the severance payments, so the Group has no severance payment obligations for these employees. The expenses for this were EUR 1,134 thousand in the reporting period (2022: EUR 1,018 thousand).

In addition, voluntary severance payments amounting to EUR 87 thousand were made in the reporting period (2022: EUR 185 thousand).

The actuarial gains/losses for severance payment obligations recognised in other comprehensive income were as follows:

	2023 EUR thousand	2022 EUR thousand
Changes in demographic assumptions	5	0
Changes in financial assumptions	914	-2,990
Other changes	188	237
Total	1,107	-2,753

The main risk relating to severance payment obligations is the development of inflation and salary increases.

The following sensitivity analysis for severance payment obligations shows the effect of changes in the key actuarial parameters, while the other assumptions remained unchanged.

Interest rate	Salary increases	DBO 31 Dec. 2023 EUR thousand
3.5%	5.1%	17,334
3.35%	4.6%	16,833
3.5%	4.6%	16,609
3.65%	4.6%	16,389
3.5%	4.1%	15,923

Interest rate	Salary increases	DBO 31 Dec. 2022 EUR thousand
4.14%	5.1%	15,195
3.99%	4.6%	14,734
4.14%	4.6%	14,529
4.29%	4.6%	14,328
4.14%	4.1%	13,901

Provisions for pensions

Generally, the pension benefits for employees are provided by state social security institutions. The Frequentis Group has a legal obligation to pay pension and health care contributions for its employees. In addition, there are the defined benefit obligations outlined below.

The pension benefit obligations are defined benefit obligations arising from individual commitments to current members of the Executive Board and two former members of the Executive Board. The beneficiaries receive a lifelong monthly retirement pension or pension benefits for surviving dependants, resulting from reinsurance contributions.

In addition, Frequentis Orthogon GmbH has defined benefit obligations arising from individual commitments to four employees. The beneficiaries are entitled to a lifelong fixed retirement pension, which is only partly covered by reinsurance.

The plan assets comprise funded insurance of Frequentis AG, which is pledged to the entitled beneficiaries. Since the funded insurance of Frequentis Orthogon GmbH is not pledged to the entitled beneficiaries, it is recognised in the statement of financial position in other non-current financial assets.

The pension benefit obligations were measured using the following parameters:

	2023	2022
Interest rate	3.6%	4.2%
Retirement age	60/65 years	60/65 years
Average term of the defined benefit obligation	12.13 years	11.75 years

Development of pension provisions and plan assets:

	2023 EUR thousand	2022 EUR thousand
Present value of the defined benefit obligation (DBO) as at 1 January	4,356	6,046
Fair value of plan assets	-2,365	-3,427
+ Provisions / - surplus plan assets as at 1 January	1,991	2,619
Present value of the defined benefit obligation (DBO) as at 1 January	4,356	6,046
Service cost	123	228
Interest cost	179	78
Pension payments	-387	-137
Recognised actuarial losses (+)/gains (-)	328	-1,859
Present value of the pension benefit obligations (DBO) as at 31 December	4,599	4,356
Fair value of plan assets as at 1 January	2,365	3,427
Reclassified	0	-573
Return on plan assets	126	37
Payments made	200	175
Payments received from plan assets	-124	-108
Recognised actuarial losses (-)/gains (+)	-57	43
Change in the asset ceiling	135	-636
Fair value of plan assets as at 31 December	2,645	2,365
Provisions as at 31 December		
Present value of the pension benefit obligation (DBO)	4,599	4,356
Fair value of plan assets	-2,645	-2,365
+ Provisions / - surplus plan assets as at 31 December	1,954	1,991

In 2022, EUR 573 thousand relating to Frequentis Orthogon GmbH was reclassified from plan assets to other non-current financial assets.

In addition, voluntary and statutory defined contribution pension payments of EUR 2,669 thousand were made in the reporting period (2022: EUR 2,218 thousand).

It is expected that EUR 216 thousand will be paid into the pension insurance in 2024 (2023: EUR 221 thousand).

The actuarial gains recognised in other comprehensive income in the reporting period were as follows:

	2023 EUR thousand	2022 EUR thousand
Changes in demographic assumptions	0	0
Changes in financial assumptions	349	-1,858
Other changes	-21	-1
Other changes to plan assets	57	-43
Total	385	-1,902

For the Frequentis Group, the principal risks relating to pension obligations are the development of life expectancy and the development of inflation, because the pension benefits comprise lifelong pension payments. The risk remaining with the Frequentis Group is that the development of the plan assets may not cover the anticipated minimum return or preserve the value of the capital.

The following sensitivity analysis for the defined benefit obligation shows the effect of changes in the key actuarial assumptions, while the other assumptions remained unchanged.

Interest rate	DBO 31 Dec. 2023
	EUR thousand
3.45%	4,693
3.6%	4,599
3.75%	4,314

Interest rate	DBO 31 Dec. 2022
	EUR thousand
4.05%	4,445
4.20%	4,356
4.35%	4,269

Provisions for anniversary bonuses

Provisions for obligations to pay anniversary bonuses relate to long-term employee benefits at Frequentis Comsoft GmbH based on company practice. Employees are granted a one-off bonus of between EUR 1 thousand and EUR 3 thousand for a certain length of service.

Obligations for anniversary bonuses were measured by applying an interest rate of 3.5% (2022: 4.14%) and an average term of 6.7 years (2022: 7.2 years).

	2023	2022
	EUR thousand	EUR thousand
Present value of the anniversary bonus obligations (DBO) corresponding to the provisions as at January 1	302	389
Current service cost (CSC)	30	41
Interest cost (IC)	11	4
Actual payments made	-49	-47
Recognised actuarial loss (+)/gain (-)	1	-85
Present value of the anniversary bonus obligations (DBO) as at 31 December = provisions as at 31 December	295	302

The main risk relating to anniversary bonus obligations is the development of inflation.

The following sensitivity analysis for anniversary bonus obligations shows the effect of changes in the key actuarial assumptions, while the other assumptions remained unchanged.

Interest rate	DBO 31 Dec. 2023
	EUR thousand
3.35%	298
3.5%	295
3.65%	292

Interest rate	DBO 31 Dec. 2022
	EUR thousand
3.99%	305
4.14%	302
4.29%	300

Other non-current provisions

The other non-current provisions comprise:

	As at 31 Dec. 2022	Foreign currency translation	Interest	Utilisation	Reversal	Additions	Reclassified to liabilities	As at 31 Dec. 2023
	EUR thousand	EUR thousand	EUR thousand	EUR thousand	EUR thousand	EUR thousand	EUR thousand	EUR thousand
Provisions for leave based on period of service	103	-3	4	-7	-21	9	0	85
Provisions for projects	211	0	-21	-0	0	429	0	619
Other	127	-1	1	-55	0	30	0	102
	441	-4	-16	-62	-21	468	0	807

A long-term holiday provision is recognised for two foreign subsidiaries for an additional holiday entitlement which is dependent on length of service. Short-term holiday entitlements are recognised in other liabilities.

The provisions for projects relate to projects where the expected future expenses exceed expected revenues. They are not expected to be utilised within the next twelve months.

The interest on the provisions for leave based on period of service is recognised in personnel expenses, while the interest on the provisions for projects and the other provisions is recognised in interest expense.

30. Contract liabilities

Contract liabilities comprise obligations to transfer goods or services to customers, for which consideration has already been received. These primarily relate to advance payments, some of which are secured by prepayment guarantees. In addition, in some cases payments are secured by bank guarantees. No collateral existed, either on the reporting dates or during the year.

The following table shows the structure of contract liabilities:

	31 Dec. 2023 EUR thousand	31 Dec. 2022 EUR thousand
Advances for customer projects	86,504	80,029
Advances offset against contract assets	-33,411	-32,048
	53,093	47,981
Other contract liabilities	9,422	13,382
Other contract liabilities offset against contract assets	-3,452	-2,822
	5,970	10,560
Accrued revenue for maintenance contracts	11,927	8,798
Liabilities for outstanding performance obligations for customer orders after final invoicing (current)	939	691
Liabilities for outstanding performance obligations for customer orders after final invoicing (non-current)	195	5
Total contract liabilities	72,124	68,035

Other contract liabilities contain contractual claims to advance payments.

EUR 1,233 thousand (2022: EUR 3,018 thousand) of the contract liabilities have a term of more than 12 months. Since the contract costs are expected to be incurred within a normal operating cycle, all contract costs are classified as current.

31. Other liabilities

The other liabilities comprise:

	31 Dec. 2023 EUR thousand	31 Dec. 2022 EUR thousand
Liability for put options, non-controlling interests	10,818	3,262
Earn-out payment liabilities	1,502	0
Loan from FFG (Austrian Research Promotion Agency)	850	284
Loans from non-controlling interests	434	426
Other liabilities	368	267
Total non-current financial liabilities	13,972	4,239
Liabilities in connection with an operating lease	2,625	0
Liability for put options, non-controlling interests	1,244	2,786
Negative fair values of cash flow hedges and MTM valuation	787	1,591
Earn-out payment liabilities	502	250
Loans from non-controlling interests	30	30
Other liabilities	1,403	1,430
Total current financial liabilities	6,591	6,087
Accrual for holidays not yet taken	5,607	4,642
Liabilities to the Austrian fiscal authorities (excluding income taxes)	3,884	1,968
Advances received in connection with grants and subsidies	3,072	762
Liabilities to health insurers	829	702
Accrual for overtime	716	635
Accrual for consultancy costs	768	595
Other liabilities	568	957
Total current non-financial liabilities	15,444	10,261

The non-current earn-out payment liabilities, which are allocated to level 3 in the fair value hierarchy, are one element of the contractually agreed purchase prices for FRAFOS GmbH and Frequentis Recording AS, which were acquired in 2023. The earn-out payment for FRAFOS GmbH is based on the annual financial statements prepared in accordance with the German Commercial Code and is dependent on achievement of an EBIT target. The earn-out payment for Frequentis Recording AS is based on the number of recording solutions sold.

These liabilities were remeasured as at the reporting date. In view of the increase in EBIT in the reporting period and the expected increase in subsequent years, the liability relating to FRAFOS GmbH was increased from the original amount of EUR 752 thousand to EUR 955 thousand. This increase is recognised in other operating expenses. In the case of Frequentis Recording, there was no change in the assumptions made at the acquisition date.

There is a further agreement on an earn-out payment for ATRiCS Advanced Traffic Solutions GmbH. This is dependent on achievement of an EBIT target, the net cash/debt ratio as of 31 December 2024, and the deviation from the target working capital as at 31 December 2024. Based on the challenging order situation and the available figures, payment is no longer expected.

The non-current liability for put options of non-controlling interests relates to options held by non-controlling shareholders in Regola S.r.l., ELARA Leitstellentechnik GmbH, and FRAFOS GmbH to transfer these interests to Frequentis. If the options are exercised, Frequentis has an irrevocable obligation to acquire the interests in these businesses. The earliest exercise dates for these put options are 2027 (Regola S.r.l. and FRAFOS GmbH) and 2028 (ELARA Leitstellentechnik GmbH). The agreement with ELARA Leitstellentechnik GmbH was modified in the reporting period. This altered the calculation of the enterprise value and postponed the initial exercise date to January 2028.

For Regola S.r.l. and ELARA Leitstellentechnik GmbH, the value of the put option corresponds to the enterprise value less net financial debt, while for FRAFOS GmbH it corresponds to the enterprise value less net financial debt and the deviation from target working capital. The enterprise value is determined using a multiples-based valuation. The basis for this multiples-based valuation is EBIT for the 12 months directly prior to exercise of the option (in the case of Regola S.r.l.), the average revenues and EBIT reported in the annual financial statements for the last two financial years immediately prior to exercise of the option (in the case of ELARA Leitstellentechnik GmbH), or the average EBIT in the three years immediately prior to exercise of the option (in the case of FRAFOS GmbH).

The current liability for a put option of non-controlling interests relates to an option held by non-controlling shareholders in Systems Interface Ltd. to transfer these interests to Frequentis. Based on the contractual terms, this option could be exercised for the first time as at the reporting date and Frequentis had an irrevocable obligation to acquire the interests in this business. This put option was exercised on 26 January 2024.

32. Other current provisions

The other current provisions comprise:

	As at 31 Dec. 2022 EUR thousand	Foreign exchange difference EUR thousand	Additions from business combinations EUR thousand	Utilisation EUR thousand	Reversal EUR thousand	Added EUR thousand	As at 31 Dec. 2023 EUR thousand
Bonuses	11,207	-69	7	11,145	0	12,144	12,144
Provisions for projects	1,220	-13	0	1,207	0	1,503	1,503
Litigation costs	1,027	0	0	182	0	0	845
Other	1,460	-1	1	1,099	64	1,034	1,331
	14,914	- 83	8	13,633	64	14,681	15,823

The provisions for bonuses contain employee bonuses and variable salary components that are not yet due for payment.

The provisions for projects contain project costs for which provisions are recognised due to the excess of estimated future expenses over revenues.

The provisions for litigation costs relate to the lawsuit filed in connection with Commerzialbank Mattersburg.

It is expected that the current provisions will result in actual outflows in the 2024 financial year.

Based on the sensitivity analyses performed, a 10% reduction in the remaining costs would reduce the provisions for projects by EUR 983 thousand (2022: EUR 543 thousand) and a 10% increase in the remaining costs would increase the provisions for projects by EUR 1,187 thousand (2022: EUR 582 thousand).

Other information

33. Consolidated cash flow statement

In the consolidated cash flow statement, cash inflows and outflows for operating, investing, and financing activities are reported separately. The operating cash flow is reported using the indirect method. Non-cash expenses (mainly depreciation and amortisation) and income are therefore added to or deducted from the profit/loss before tax. Taking into consideration changes in net working capital, this gives the cash flow from operating activities. Cash flows from forward exchange contracts are recognised in the cash flow from operating activities.

The increase in the cash flow from operating activities from EUR 14,223 thousand to EUR 25,655 thousand was mainly due to the increase of EUR 6,757 thousand (2022: EUR 239 thousand) in other liabilities and the increase in the net cash flow from operations from EUR 43,606 thousand to EUR 46,819 thousand.

Investing activities mainly comprise cash inflows and outflows for intangible assets, property plant, and equipment and cash outflows for business combinations.

Financing activities comprise dividend payments, cash outflows for repayment of loans, and payments of principal on lease liabilities.

The change in financial liabilities, where cash inflows and outflows are presented in the cash flow statement as cash flows from financing activities, is as follows:

	Carrying amount as at 1 Jan. 2023 EUR thousand	Changes in reporting entities EUR thousand	Exchange rate differences EUR thousand	Cash flow EUR thousand	Addition IFRS 16 EUR thousand	Disposal IFRS 16 EUR thousand	Reclassification of maturities EUR thousand	Carrying amount as at 31 Dec. 2023 EUR thousand
Non-current liabilities	928	49	9	566	0	0	-119	1,433
Non-current lease liabilities	30,763	0	-93	0	4,069	0	-5,552	29,187
Current liabilities	199	18	0	-122	0	0	119	214
Current lease liabilities	8,422	0	-52	-8,417	2,580	-17	5,552	8,068
Total liabilities for financing activities	40,312	67	-136	-7,973	6,649	-17	0	38,902

	Carrying amount as at 1 Jan. 2022	Changes in reporting entities	Exchange rate differences	Cash flow	Addition IFRS 16	Disposal IFRS 16	Reclassification of maturities	Carrying amount as at 31 Dec. 2022
	EUR thousand	EUR thousand	EUR thousand	EUR thousand	EUR thousand	EUR thousand	EUR thousand	EUR thousand
Non-current liabilities	4,269	0	-26	-3,228	0	0	-87	928
Non-current lease liabilities	29,785	175	80	0	5,834	0	-5,111	30,763
Current liabilities	1,085	0	0	-973	0	0	87	199
Current lease liabilities	7,794	65	31	-8,686	4,224	-117	5,111	8,422
Total liabilities for financing activities	42,933	240	85	-12,887	10,058	-117	0	40,312

The liability for put options held by non-controlling interests are not included in the above table because there were no cash-effective changes in either 2023 or 2022.

The cash and cash equivalents presented in the cash flow statement correspond to the line item "cash and cash equivalents" in the statement of financial position. The cash and cash equivalents comprise cash on hand, cheques, and bank deposits that are due on demand, with an original maturity of up to three months.

34. Financial instruments

Overview

The Frequentis Group is exposed to various market risks in respect of its financial assets, liabilities, and forecast transactions. These risks comprise interest rate, exchange rate, credit, and liquidity risks. The Frequentis Group uses derivative financial instruments as currency hedging instruments. The risk of fluctuations in exchange rates is therefore limited by concluding forward exchange contracts of the necessary amount, based on forecast future transactions. The principles are set out in treasury guidelines, which have been approved by the management.

The Executive Board of Frequentis AG bears the responsibility for setting up and overseeing risk management for the Frequentis Group. It is also responsible for the development and ongoing monitoring of the risk limitation guidelines.

These guidelines serve to identify and analyse the risks to which the Frequentis Group is exposed, set appropriate risk limits, introduce controls, and constantly monitor the risks and observance of the limits. The risk management guidelines and workflows are regularly reviewed in order to reflect changes in market conditions and changes in the Group's business activities. The Frequentis Group strives to create a constructive and disciplined control environment where all employees are aware of their role and responsibilities.

In accordance with IFRS 9, the Frequentis Group presents all financial assets, financial liabilities, and derivative financial instruments in its statement of financial position as assets and liabilities. They are measured at fair value or at amortised cost.

Liquidity risk

Liquidity risk is the risk that the Frequentis Group might not be able to meet its financial obligations when they are due or might not be able to realise its investments. The aim of risk management in the Frequentis Group is to create sufficient liquidity to ensure that it can settle all obligations when due, in both normal and stressed conditions. Furthermore, all measures required to secure this level of liquidity have to be taken, as set out in the liquidity plan. The liquidity risk is shown by the monthly and annual accumulated difference between cash inflows and outflows (dynamic liquidity risk) and the structure of the statement of financial position (structural liquidity risk).

Liquidity planning is used to analyse the dynamic liquidity risk. The monthly liquidity requirements, based on liquidity planning, are compared with the available funding or the available liquid financial assets. The difference is either a shortfall in liquidity, which needs to be funded, or excess liquidity, which may have to be invested. Liquidity planning forms the basis for decisions on strategy and measures to safeguard liquidity. The liquidity plan is reviewed regularly and the corresponding investments are initiated.

The Treasury department operates as an internal financial services centre by making optimum use of potential synergies in the financing of subsidiaries. The overriding aim is to secure (provide) liquidity at the lowest cost. In this way, management of short-term financial investments and loans is ensured on optimum interest terms and with minimum administrative work. The operating cash flow basically creates the liquidity required. The external sources of any necessary financing requirements are the capital market and the credit market. To ensure the solvency and financial flexibility of the Frequentis Group at all times, a liquidity reserve is held in the form of cash and cash equivalents and credit lines.

A functioning banking system is of fundamental importance for the Frequentis Group and its customers. The Frequentis Group requires access to debt to pre-finance upfront project services up to settlement of the invoice. Therefore, it continuously monitors, controls, and evaluates its financial and liquidity position in order to limit the associated risks. The Frequentis Group manages liquidity risks through careful planning and management of its liquidity requirements. Suitable measures are defined on the basis of cash flow forecasts and the Group ensures that it has adequate financial reserves to cover operational requirements and monitors credit lines.

The following table shows the contractually agreed (undiscounted) payments of interest and principal for derivative financial instruments and non-derivative financial liabilities. The variable interest payments for financial instruments were derived from the last applicable interest rates prior to 31 December 2023 and 31 December 2022. Foreign currency amounts were translated in each case at the closing rate on the reporting date. It is not expected that the cash flows from the financial liabilities included in the maturity analysis could occur much earlier or that the amounts could differ significantly.

2023

in EUR thousand

	Carrying amount	Contractual cash flows			Total
		Less than 1 year	Between 1 and 5 years	More than 5 years	
Liabilities to banks and other financial liabilities	363	220	151	0	371
Lease liabilities	37,255	8,923	23,422	7,780	40,125
Trade accounts payable	18,937	18,937	0	0	18,937
Other liabilities	19,776	5,812	13,984	0	19,796
Non-derivative liabilities	76,331	33,892	37,557	7,780	79,229
Derivative financial instruments	787	13,329	0	0	13,329
Derivative financial liabilities	787	13,329	0	0	13,329
Total	77,118	47,221	37,557	7,780	92,558

2022

in EUR thousand

	Carrying amount	Contractual cash flows			Total
		Less than 1 year	Between 1 and 5 years	More than 5 years	
Liabilities to banks and other financial liabilities	417	216	212	0	428
Lease liabilities	39,185	9,063	22,914	9,971	41,948
Trade accounts payable	16,258	16,258	0	0	16,258
Other liabilities	8,735	4,496	4,241	0	8,738
Non-derivative liabilities	64,595	30,033	27,367	9,971	67,372
Derivative financial instruments	1,591	21,305	0	0	21,305
Derivative financial liabilities	1,591	21,305	0	0	21,305
Total	66,186	51,338	27,367	9,971	88,676

Credit risk

Credit risk is the risk of a financial loss if a customer or the counterparty to a financial instrument does not satisfy its contractual obligations. Credit risks mainly relate to receivables from customers (2023: EUR 81,029 thousand; 2022: EUR 76,990 thousand), contract assets (2023: EUR 61,272 thousand; 2022: EUR 50,475 thousand), other financial assets (2023: EUR 3,953 thousand; 2022: EUR 3,644 thousand), time deposits (2023: EUR 10,500 thousand; 2022: EUR 10,000 thousand), and cash and cash equivalents (2023: EUR 74,180 thousand; 2022: EUR 81,380 thousand).

The credit risks, their origin, the objectives, guidelines, and workflows for ongoing risk monitoring, and the methods used to measure credit risks were unchanged in the reporting period.

The offer process specifies that the creditworthiness of each new customer must be analysed separately before the Frequentis Group's standard terms of payment and delivery are offered. This includes examining external ratings, where available, annual financial statements, and information from credit agencies.

The risk of default by customers is reduced by mandatory credit assessments and measures to secure payment. For information on the measurement of any impairment losses based on the expected credit losses model, see Note 20. Trade accounts receivable and Note 21. Contract assets.

The estimated loss allowances for cash and cash equivalents were measured on the basis of the expected 12-month credit losses and reflect their maturities. Based on the external ratings of the banks and financial institutions used, the Frequentis Group estimates that there is a low default risk in respect of its cash and cash equivalents (with the exception of Commerzialbank Mattersburg, where an impairment loss has been recognised for the amounts concerned).

There is no significant concentration or material credit risk in respect of individual banks, contractual partners, or individual financial instruments. In response to the insolvency of Commerzialbank Mattersburg in 2020, counterparty risk management was extended. Every bank defined as a core bank must be system-relevant, and a bank-specific limit has been set for the entire banking relationship, based on the bank's credit rating.

Interest rate risk

The Frequentis Group is exposed to interest rate risk resulting from fluctuations in interest rates on the capital market. Accordingly, changes in interest rates may lead to fluctuations in the fair value or future cash flows of financial assets and financial liabilities.

The bank deposits included in cash and cash equivalents amount to EUR 74,180 thousand (31 December 2022: EUR 81,380 thousand) and bear interest at variable rates or do not bear any significant interest. A reduction in interest rates would not result in any significant change because the majority of the deposits with banks do not bear significant interest and a reduction would not automatically result in negative interest. No negative interest was paid in the reporting period (2022: negative interest of EUR 147 thousand, recognised in other operating expenses). An increase in interest rates of one percentage point would increase interest income by EUR 742 thousand (2022: EUR 814 thousand).

Within financial liabilities, non-current liabilities to banks and other non-current financial liabilities bear interest at fixed rates, while some (EUR 94 thousand) of the current liabilities to banks and other current financial liabilities bear variable interest rates (2022: fixed interest rates on all current liabilities). Interest rates for all lease liabilities are fixed.

Since the interest rate risk is insignificant, it is not presented in tabular form.

Exchange rate risk

The operating business of the companies in the Frequentis Group results in cash inflows and outflows in foreign currencies, which are not always matched by payments of the same amount in the same currency and with the same maturity. Therefore, the companies in the Frequentis Group are exposed to exchange rate risks.

For information on the hedging of exchange rate risks, see the “Derivative financial instruments” section.

Relationship between the items in the statement of financial position, categories of financial instruments, carrying amounts, and fair values

The following table shows the carrying amounts and fair values of financial assets and financial liabilities, including the categories to which they are allocated. It does not contain any information on the fair value of financial assets and financial liabilities that are not measured at fair value if the carrying amount is a reasonable approximation of the fair value (amounts in EUR thousand).

2023	Measured at fair value			Measured at amortised cost		Total carrying amount
	Hedge accounting	Mandatory recognition at fair value through profit or loss	Equity instruments – at fair value through profit or loss	Financial assets	Other financial liabilities	
Financial assets						
Equity instruments			22			22
Time deposits				10,500		10,500
Trade accounts receivable				81,029		81,029
Derivative financial instruments	0	728				728
Other current and non-current assets				3,203		3,203
Cash and cash equivalents				74,180		74,180
Total	0	728	22	168,912		169,662
Financial liabilities						
Liabilities to banks and other financial liabilities					363	363
Trade accounts payable					18,937	18,937
Lease liabilities					37,255	37,255
Derivative financial instruments	0	787				787
Liabilities relating to put options and earn-out agreements		14,066				14,066
Other liabilities					5,710	5,710
Total	0	14,853			62,265	77,118

2022	Measured at fair value			Measured at amortised cost		Total carrying amount
	Hedge accounting	Mandatory recognition at fair value through profit or loss	Equity instruments – at fair value through profit or loss	Financial assets	Other financial liabilities	
Financial assets						
Equity instruments			0			0
Time deposits				10,000		10,000
Trade accounts receivable				76,990		76,990
Derivative financial instruments	3	658				661
Other current and non-current assets				2,983		2,983
Cash and cash equivalents				81,380		81,380
Total	3	658	0	171,353		172,014
Financial liabilities						
Liabilities to banks and other financial liabilities					417	417
Trade accounts payable					16,258	16,258
Lease liabilities					39,185	39,185
Derivative financial instruments	273	1,318				1,591
Liabilities relating to put options and earn-out agreements		6,298				6,298
Other liabilities					2,437	2,437
Total	273	7,616			58,297	66,186

Fair value

Trade accounts receivable, contract assets, other receivables, time deposits, cash and cash equivalents, trade accounts payable, contract liabilities, and other liabilities are measured at their carrying amount, which is a reasonable approximation of the fair value, due to their essentially short remaining term.

There is no quoted price available an active market for the equity instruments Altitude Angel Ltd., or for AIRlabs Austria GmbH. Therefore, they are measured using parameters that are unobservable on the market. The fair value is allocated to level 3 in the fair value hierarchy. There is currently no intention of selling the equity instruments.

The earn-out liabilities relating to the acquisition of ATRiCS Advanced Traffic Solutions GmbH, FRAFOS GmbH, and Frequentis Recording AS are measured at fair value and allocated to the category at fair value through profit or loss. The fair value is allocated to level 3 in the fair value hierarchy.

The liabilities relating to the put options of the non-controlling interests in ELARA Leitstellentechnik GmbH, Systems Interface Ltd., Regola S.r.l., and FRAFOS GmbH are recognised at fair value, while changes are recognised in equity with no impact on profit or loss in accordance with IFRS 10. The fair value is allocated to level 3 in the fair value hierarchy. Since there is no category for this, in the above table the amount is recognised in other liabilities at fair value through profit or loss.

The carrying amounts of derivative financial assets and liabilities correspond to their fair values. Derivatives that have not been designated as a hedging instrument nevertheless serve economically to hedge fluctuations in exchange rates. Their fair values are based on the present value of expected future cash flows, discounted by the interest rate that the Group estimates could be obtained for comparable financial instruments. They are allocated to level 2 in the fair value hierarchy.

The long-term incentive plans (LTIP), which are classified as an equity-settled share-based payment, were measured at fair value and allocated to level 3 in the fair value hierarchy.

The following hierarchy was used to allocate all financial instruments measured at fair value to a valuation method:

Level	Financial instruments at fair value
Level 2:	
Measurement based on quoted prices for similar assets	Derivative financial instruments
Level 3:	
Measurement based on models with significant valuation parameters that are unobservable on the market	Equity instruments, earn-out liabilities, liabilities from put options

A distinction is made between derivative and non-derivative financial instruments. The derivative financial instruments primarily include hedging instruments to hedge exchange rate fluctuations.

Net gains and losses are as follows (in EUR thousand):

2023	Derivative financial instruments	Other financial assets measured at fair value through profit or loss	Financial assets measured at fair value through OCI	Financial assets measured at amortised cost	Financial liabilities measured at amortised cost
Net interest income/expense				946	-1,442
Valuation	599				
Loss allowance pursuant to IFRS 9				29	
Exchange rate gains/losses				-819	-22
Disposal gains/losses					
Net gains/losses recognised in profit or loss	599	0	0	156	-1,464
Net gains/losses recognised in other comprehensive income	164				
Net gains/losses	763	0	0	156	-1,464

2022	Derivative financial instruments	Other financial assets measured at fair value through profit or loss	Financial assets measured at fair value through OCI	Financial assets measured at amortised cost	Financial liabilities measured at amortised cost
Net interest income/expense				209	-738
Valuation	122				
Loss allowance pursuant to IFRS 9				-313	
Exchange rate gains/losses				-950	-187
Disposal gains/losses					
Net gains/losses recognised in profit or loss	122	0	0	-1,054	-925
Net gains/losses recognised in other comprehensive income	297				
Net gains/losses	419	0	0	-1,054	-925

The loss allowances and exchange rate gains/losses are recognised in other operating expenses and other operating income.

Derivative financial instruments

In international business, it is necessary to conclude contracts in foreign currencies. The Frequentis Group's foreign currency risk results mainly from future business transactions, insofar as they are performed in a currency other than the functional currency of the parent company or the respective subsidiary.

Foreign currency exchange risks are managed using derivative financial instruments, unless a natural hedge can be used (e.g. contracts with suppliers in the same foreign currency). The largest foreign currency exposures arise from customer orders in AUD, CAD, CZK, GBP, HKD, MXN, NOK, QAR, SGD, and USD.

Forward exchange contracts are concluded to hedge the risk of exchange rate fluctuations. Derivative financial instruments are not used for speculative purposes.

The Frequentis Group aims to manage and monitor the foreign currency risks for future payments under contracts with customers on a rolling basis throughout the entire project period through hedging with forward exchange contracts at the date of order intake. The forward exchange contracts (economic hedges – MTM) are concluded for a year and extended annually in the amount of the cash flows still expected (extension at historical rates).

Hedging transactions are accounted for individually (designated hedging relationships are not used). The remaining designated hedging relationships (hedging of contractually agreed cash flows) from previous years ended in the reporting period. Changes in the fair value of forward exchange contracts are recognised in other operating income or other operating expense.

The carrying amount of derivative financial instruments corresponds to their current fair value, whereby the fair value was determined from the current market value based on the closing exchange rate for the foreign currency as at 31 December 2023, verified by corresponding bank confirmations.

The following table shows the development of the derivative financial instruments:

2023	Derivative		Average hedging rate	Total
	Sale amount	Purchase amount EUR thousand		Fair value EUR thousand
AUD	-4,242	2,665	1.59	76
CAD	1,000	-662	1.51	13
GBP	-89	110	0.81	8
HKD	-7,610	894	8.51	20
NOK	2,200	-188	11.69	6
QAR	-5,174	1,301	3.98	18
SGD	-194	134	1.45	1
USD	-21,416	19,539	1.10	586
		23,793		728
AUD	-309	186	1.66	-3
CAD	-1,664	1,088	1.53	-41
CZK	30,361	-1,225	24.78	-16
GBP	-4,748	5,216	0.91	-130
HKD	16,307	-1,916	8.51	-43
MXN	-92,838	4,521	20.54	-88
NOK	-9,185	794	11.57	-15
QAR	4,311	-1,084	3.98	-15
SGD	-378	207	1.82	-51
USD	-6,669	5,542	1.20	-385
		13,329		- 787

2022 Sale currency	Derivative		Cash flow hedge			For MTM valuation		Total
	Sale amount	Purchase amount EUR thousand	Average hedging rate	Foreign currency amount	Fair value EUR thousand	Foreign currency amount	Fair value EUR thousand	Fair value EUR thousand
AUD	-7,456	4,751	1.57	0	0	-7,456	72	72
CHF	-104	107	0.98	0	0	-104	0	0
GBP	-3,465	3,954	0.88	-264	3	-3,201	94	97
SGD	-227	157	1.44	0	0	-227	0	0
USD	-25,810	24,022	1.07	0	0	-25,810	491	491
		32,991			3		657	661
AUD	-533	323	1.65	0	0	-533	-12	-12
CAD	-1,820	1,173	1.55	0	0	-1,820	-60	-60
GBP	-6,668	7,101	0.94	-5,672	-273	-996	-59	-332
HUF	-10,029	22	452.83	0	0	-10,029	0	0
QAR	-5,174	1,301	3.98	0	0	-5,174	-24	-24
SGD	-1,300	815	1.60	0	0	-1,300	-83	-83
USD	-12,656	10,570	1.20	0	0	-12,656	-1,080	-1,080
		21,305			-273		-1,318	-1,591

For the carrying amount of the MTM valuation, a positive fair value of EUR 728 thousand was recognised in other receivables in 2023 (2022: EUR 661 thousand), while a negative fair value of EUR 787 thousand was recognised in other liabilities (2022: EUR 1,591 thousand).

The table shows the development of the cash flow hedge reserve:

	2023 EUR thousand	2022 EUR thousand
As at 31 December of the previous year	-125	-346
Result from changes in fair value	0	194
Deferred taxes on this amount	0	-46
Reclassification to the income statement	164	103
Deferred taxes on this amount	-39	-25
Adjustments due to changes in tax rates	0	-5
As at 31 December of the financial year	0	-125

35. Leases

Frequentis as lessee

The Frequentis Group has concluded leases with some contractual partners, in particular for buildings, machinery, vehicles, and IT equipment.

The leases for buildings are concluded either for a defined period or for an indefinite period with short termination periods for the lessee and lessor. Where office premises are leased for small subsidiaries, they are classified as short-term leases because termination does not result in any penalties and new premises are readily available. The lease for the office building used as the company's headquarters is for an indefinite period and cannot be terminated until 2026. As at 31 December 2022 and 31 December 2023, a lease term until 2030 was estimated.

In 2020, a lease for an indefinite period was concluded for a placement machine. Since this lease cannot be terminated for 72 months, the right-of-use asset was recognised in accordance with this lease term.

The leases for motor vehicles have a term of approximately 3 to 6 years, while IT equipment is generally leased for 5 years. There are neither options to terminate nor to extend the leases, or the exercise of such options is not considered to be virtually certain, so they are not included in the assessment of the right-of-use asset.

The Frequentis Group also leases IT and other equipment. These leases are classified as short-term leases or leases for low-value assets, for which the exemptions are applied. Therefore, they are not recognised in the consolidated financial statements as either assets or liabilities.

The following table presents details of the right-of-use assets recognised in property, plant and equipment:

2023	Right-of-use assets for land and buildings EUR thousand	Right-of-use assets for machinery EUR thousand	Right-of-use assets for other plant, factory and office equipment EUR thousand	Total EUR thousand
Acquisition cost				
As at 1 January 2023	65,823	587	4,426	70,836
Foreign currency translation	-348	0	-5	-353
Changes in reporting entities	0	0	0	0
Addition	5,430	0	1,220	6,650
Disposal	-904	0	-848	-1,752
As at 31 December 2023	70,001	587	4,793	75,381
Accumulated depreciation				
As at 1 January 2023	-29,600	-211	-2,378	-32,189
Foreign currency translation	220	0	4	224
Changes in reporting entities	0	0	0	0
Addition	-7,878	-96	-972	-8,946
Disposal	904	0	828	1,732
As at 31 December 2023	-36,354	-307	-2,518	-39,179
Carrying amount				
As at 31 December 2023	33,647	280	2,275	36,202
2022	Right-of-use assets for land and buildings EUR thousand	Right-of-use assets for machinery EUR thousand	Right-of-use assets for other plant, factory and office equipment EUR thousand	Total EUR thousand
Acquisition cost				
As at 1 January 2022	57,028	587	3,444	61,059
Foreign currency translation	164	0	1	165
Changes in reporting entities	347	0	35	382
Addition	8,835	0	1,240	10,075
Disposal	-551	0	-294	-845
As at 31 December 2022	65,823	587	4,426	70,836
Accumulated depreciation				
As at 1 January 2022	-21,839	-115	-1,735	-23,689
Foreign currency translation	-2	0	2	0
Changes in reporting entities	-123	0	-22	-145
Addition	-8,082	-96	-888	-9,066
Disposal	446	0	265	711
As at 31 December 2022	-29,600	-211	-2,378	-32,189
Carrying amount				
As at 31 December 2022	36,223	376	2,048	38,647

In addition to new leases, the additions to right-of-use assets include adjustments resulting from contract modifications, contract extensions, reassessment of contract terms, and index adjustments.

The lease liabilities changed from EUR 39,185 thousand (comprising EUR 30,763 thousand non-current and EUR 8,422 thousand current) as at 1 January 2022 to EUR 37,255 thousand (comprising EUR 29,187 thousand non-current and EUR 8,068 thousand current) as at 31 December 2023.

The following expenses for leases are recognised in the income statement:

	2023 EUR thousand	2022 EUR thousand
Depreciation of right-of-use assets	8,946	9,066
Interest expense for lease obligations	916	412
Lease payments for short-term leases	613	614
Lease payments for low-value assets	63	64
Total	10,538	10,156

Amounts recognised in the cash flow statement in connection with leases:

	2023 EUR thousand	2022 EUR thousand
Payments of principal on lease liabilities	8,417	8,686
Interest paid on lease liabilities	916	412
Lease payments for short-term leases and low-value assets	676	678
	10,009	9,776

Interest paid on leases and lease payments for short-term leases and low-value assets are presented in the net cash flow from operating activities, while the payments of principal on lease liabilities are reported in the net cash flow from financing activities.

During 2023, the Frequentis Group concluded several leases that start in 2024. However, these are insignificant leases for vehicles and the rental of buildings.

Frequentis as lessor

Leases payments for operating leases where the Frequentis Group is the lessor relate to insignificant subleases and to operating leases for the use of voice communication systems. The lease terms are between one and four years. There are no extension options, nor are there any options to acquire the asset at the end of the lease term.

Due dates of future payments from operating leases:

	31 Dec. 2023 EUR thousand	31 Dec. 2022 EUR thousand
Due in one year	3,964	1,731
Due in two years	11	1,457
Due in three years	0	11
Due in four years	0	0
Due in five years	0	0
Due in more than five years	0	0
	3,975	3,199

EUR 2,115 thousand (2022: EUR 182 thousand) was recognised in the income statement as revenue (2022: other operating income).

36. Information on business relations with related parties

Parent company

Frequentis Group Holding GmbH holds a majority stake of around 60% of the shares in Frequentis AG.

In the reporting period, revenues from transactions with Frequentis Group Holding GmbH were as follows:

	2023	2022
	EUR thousand	EUR thousand
Goods and services supplied and other income	17	19
Goods and services received and other expenses (consulting services)	642	590
Receivables outstanding as at 31 December	3	2
Liabilities outstanding as at 31 December	66	0

All transactions are effected on an arm's length basis.

Associated companies

The Frequentis Group maintains relationships with associated companies within the scope of ordinary business activities and buys and sells services at arm's length.

In the reporting period, revenues from transactions with the associated companies were as follows:

	2023	2022
	EUR thousand	EUR thousand
Goods and services supplied and other income	904	1,084
Goods and services received and other expenses	2,080	2,813
Receivables outstanding as at 31 December	69	192
Liabilities outstanding as at 31 December	339	419
Advances payments received as of 31 December	750	588
Advance payments made as at 31 December	43	0

Related companies

A number of key management personnel or related parties have functions in other entities that result in them having control or significant influence over the financial and operating policies of those entities.

In the reporting period, the following transactions were effected with companies and persons classified as related parties:

	2023	2022
	EUR thousand	EUR thousand
Expenses for consulting services	105	283
Expenses for project support services	562	220
Expenses for software development and engineering	2,732	1,856
Rental payments (principal and interest) and operating costs	3,971	3,954
Interest expense for loans received	2	1
Revenues	694	1,897
Receivables as at December 31	666	1,068
Payables as at December 31	296	105
Loans received as at Dec. 31	30	30

The expenses for software development and engineering also contain charges of EUR 955 thousand (2022: EUR 467 thousand) from companies that would not be classified as related parties under IAS 24. The related liabilities amount to EUR 105 thousand (2022: EUR 46 thousand) and the related receivables amount to EUR 1 thousand (2022: EUR 0 thousand).

The rental payments mainly comprise rent for the office premises at the company's headquarters in Vienna.

Austrian Research Promotion Agency (Österreichische Forschungsförderungsgesellschaft/FFG): Johannes Bardach is a member of the Supervisory Board of FFG. FFG's core business is granting subsidies and loans for research purposes. To ensure the necessary strategic focus of the Supervisory Board, in accordance with the FFG law, representatives of companies that receive funding from FFG are nominated as members of the Supervisory Board. However, the members of the Supervisory Board do not have any role in or influence on the funding processes.

In the reporting period, advance payments for future research revenues in the amount of EUR 48 thousand (2022: EUR 188 thousand) were disbursed by FFG. Funding received from FFG in the reporting period totalled EUR 618 thousand (2022: EUR 502 thousand). EUR 237 thousand of this amount (2022: EUR 210 thousand) is presented in other receivables. Furthermore, in the reporting period FFG disbursed two further instalments of a loan that had previously been granted and the first instalment of a loan granted in 2023 in connection with a research project in the amount of EUR 567 thousand. The remaining terms of these loans are three and four years respectively.

Since the Supervisory Board of FFG is not involved in the awarding of grants, no conflicts of interest arise from this.

Related persons

Executive Board

In the reporting period, the Executive Board comprised:

- Norbert Haslacher, Chairman
- Monika Haselbacher
- Hermann Mattanovich
- Peter Skerlan

The total remuneration paid to the Executive Board (excluding payroll-related costs) was EUR 2,715 thousand in the reporting period (2022: EUR 2,368 thousand). The remuneration of the Executive Board comprises fixed components (annual base salary, premiums for pension reinsurance, and benefits in kind), short-term variable components for all Executive Board members, and long-term incentive plans (LTIP) for the Chairman of the Executive Board. The variable components are performance-related and are based on the achievement of short-term financial targets for the company.

Frequentis AG agreed long-term incentive plans with the Chairman of the Executive Board, Mr. Norbert Haslacher, in 2021, 2022, and 2023 (LTIP 2021, LTIP 2022, and LTIP 2023). For further information, see Note 27. Share-based payment.

The members of the Executive Board have been granted pension benefits. In addition to the post-retirement payments, these include pension benefits for surviving dependants after the death of the beneficiary. The post-retirement benefits are generally paid when the beneficiary reaches a specific age, provided that the employment contract has ended at this date. Expenses of EUR 377 thousand were incurred in the reporting period (2022: EUR 383 thousand) for contributions to pension insurance and the recognition of pension provisions for members of the Executive Board. This amount includes service cost of EUR 80 thousand (2022: EUR 167 thousand), interest cost of EUR 97 thousand (2022: EUR 42 thousand), and pension insurance expense of EUR 200 thousand (2022: EUR 175 thousand).

In the event of termination of employment, severance payments are due in accordance with the legal regulations in Austria and contractual agreements. Additions to the corresponding provisions for severance payments amounted to EUR 120 thousand in 2023 (2022: reversal of provisions in the amount of EUR 62 thousand).

No advances or loans were granted to members of the Executive Board of Frequentis AG.

Supervisory Board

The Supervisory Board of Frequentis AG comprises six representatives of the shareholders and three representatives of the workforce.

The remuneration of the Supervisory Board amounted to EUR 149 thousand in the reporting period (2022: EUR 167 thousand).

An office and support services are provided free of charge for the Chairman of the Supervisory Board, Mr. Johannes Bardach, for the performance of his function as Chairman of the Supervisory Board. EUR 111 thousand (2022: EUR 73 thousand) was invoiced for office and support services that do not relate to the performance of his function as Chairman of the Supervisory Board of Frequentis. As at 31 December 2023, there was an outstanding receivable of EUR 9 thousand for this (2022: EUR 0.3 thousand).

No advances or loans were granted to members of the Supervisory Board of Frequentis AG.

37. Significant events after the reporting date

The co-owners of Systems Interface Ltd. exercised the contractually agreed put option in January 2024. As a result, the remaining non-controlling interests (49%) were acquired in March 2024.

38. Additional information

The Frequentis Group had an average of 2,217 employees (full-time equivalents / FTEs) in 2023 (2022: 2,081 FTEs).

Audit fees

In the reporting period, audit expenses of EUR 154 thousand (2022: EUR 133 thousand) were incurred for the audit of the consolidated financial statements and the annual financial statements of Frequentis AG, expenses of EUR 118 thousand (2022: EUR 71 thousand) were incurred for other assurance services, and expenses of EUR 5 thousand (2022: EUR 23 thousand) were incurred for other services.

39. Capital management

In addition to a sustained increase in the value of the company, financial management of the Frequentis Group aims to maintain an appropriate capital structure. The principal performance indicators used to manage the capital structure are the EBIT margin, the equity ratio, and net debt. Since the Frequentis Group currently has a net cash position, it refers to net cash rather than net debt. The net cash position comprises cash and cash equivalents plus time deposits less liabilities to banks and other financial liabilities. The key performance indicators developed as follows in the reporting period:

	2023	2022
EBIT margin (based on revenues)	6.2%	6.5%
Equity ratio	41.9%	43.3%
Net cash in EUR thousand	84,317	90,963

The Frequentis Group calculates EBIT as follows:

	2023	2022
	EUR thousand	EUR thousand
Profit/loss before tax	26,419	24,737
Financial income	-946	-209
Financial expenses	1,442	738
Earnings from investments accounted for at equity	-268	-275
EBIT	26,647	24,991

The Frequentis Group meets the minimum capital requirements defined by law and the articles of association. The capital managed comprises the shareholders' equity reported in the consolidated statement of financial position.

40. Risk management

The Frequentis Group has an internal control system (ICS) for its accounting process. The reliability of the internal control system is monitored by the internal audit department. The Frequentis Group has initiated several processes based on best practice standards to ensure that its risk management is effective. The fundamental aim is to identify opportunities and risks as soon as possible and take suitable measures to maintain profitability and secure the continued existence of the Group. Risk awareness, the vigilance of all staff, and early identification of business risks are well developed and are incorporated in a solid risk management policy.

The risks are outlined in more detail in the opportunity and risk management section of the Group Management Report.

Vienna, 11 March 2024

Auditor's Report

Report on the consolidated financial statements

Audit Opinion

We have audited the consolidated financial statements of Frequentis AG, Vienna, and of its subsidiaries (the Group) comprising the consolidated balance sheet as of 31 December 2023, the consolidated income statement, the consolidated statement of changes in equity and the consolidated statement of cash flows for the fiscal year then ended and the notes to the consolidated financial statements.

Based on our audit the accompanying consolidated financial statements were prepared in accordance with the legal regulations and present fairly, in all material respects, the assets and the financial position of the Group as of 31 December 2023 and its financial performance for the year then ended in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU and with the additional requirements stated in section 245a UGB (Austrian Company Code).

Basis for opinion

We conducted our audit in accordance with the regulation (EU) no. 537/2014 (in the following "EU regulation") and in accordance with Austrian Standards on Auditing. Those standards require that we comply with International Standards on Auditing (ISAs). Our responsibilities under those regulations and standards are further described in the "Auditor's Responsibilities for the Audit of the Financial Statements" section of our report. We are independent of the Company in accordance with the Austrian General Accepted Accounting Principles and professional requirements and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained until the date of this auditor's report is sufficient and appropriate to provide a basis for our opinion by this date.

Key audit matters

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

In the following, we present the audit matters that we consider to be of particular importance:

Project Accounting

Situation and reference to further information:

A major part of the presented revenues is derived from project related business, which in the main comprises delivery and maintenance contracts. The large number of projects are different in order volume, technical complexity and duration, with a few contracts having terms of several years. In general, revenue of maintenance contracts is realised over the service period. When the requirements for realisation over time are met, revenues from delivery projects are recorded in accordance with IFRS 15 based on the stage of completion applying the cost-to-cost method.

Contractual claims arising from these projects are reported as contract assets from contracts with customers and outstanding obligations as contract liabilities from contracts with customers. In case that a project loss is expected from a further execution of a project, including maintenance contracts, that loss will be immediately recognised in the income statement.

For several ongoing or completed projects there may be different views regarding the type or scope of the performance and the contractual obligations. Such differences can have an impact on the project costs and results. The determination of the stage of completion, the estimate of costs to complete as well as the measurement of project provisions require a significant number of assumptions and forward-looking estimates. Additional estimates may be required due to the inflation-related effects on the expected project costs. Due to the significant volume of the project business, the risk for the consolidated statements consist of a material misstatement of the project revenue, the related project costs as well as the corresponding balance sheet items.

Information on the accounting of the project business can be found in chapter 2 of the notes under the accounting and valuation policy "IFRS 15 Revenue from Contracts with Customers" as well as "Significant estimates and use of judgement". Further information can be found in chapter 4 "Revenues" within the notes on the consolidated income statement and in chapter 21 "Contract assets from contracts with customers" and chapter 30 "Contract liabilities from contracts with customers".

Audit response:

In the course of our audit, we have gained an understanding of the processes and internal controls relevant to the accounting of revenues from customer contracts and we tested the effectiveness of certain internal controls. These controls mainly address the review and approval of project calculation for new contracts, the recognition of purchased services on the corresponding projects as well as the continuing monitoring and assessment for project calculations until the completion of the project.

Based on the results of the control tests, we have performed a more in-depth analysis for a sample of projects under special assessment of the discretionary decisions made. We have selected our samples considering various risk-oriented parameters, e.g. size, margin, start and duration of the project. In addition, we considered the fact of significant adjustments to the assessment compared to previous year for our determination of the sample. The audit procedures performed on the selected sample included, in particular, the review of the underlying contracts and agreements, discussions with the commercial and operating project managers concerning their estimates and assumptions, including the impact of inflation-related economic effects. We performed an analysis of current project data as well as the reconciliation of assumptions and estimates with contracts and further documents.

In addition, we have examined the recording of costs on the projects and the determination of the stage of completion. Finally, we have assessed whether the presentation of the project business in the consolidated financial statement as well as the disclosures in the notes are in accordance with the requirements of IFRS 15.

Other information

Management is responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated financial statements, the Group's management report and the auditor's report thereon.

We received the non-financial report and the corporate governance report until the date of this audit opinion; the rest of the annual report is estimated to be provided to us after the date of the auditor's report.

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

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, to consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of management and of the audit committee for the consolidated financial statements

Management is responsible for the preparation of the consolidated financial statements in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU and with the additional requirements stated in section 245a UGB (Austrian Company Code) for them to present a true and fair view of the assets, the financial position and the financial performance of the Group and for such internal controls as management determines are necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The Audit Committee is responsible for overseeing the Group's financial reporting process.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the EU regulation and in accordance with Austrian Standards on Auditing will always detect a material misstatement when it exists. 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.

As part of an audit in accordance with the EU regulation and in accordance with Austrian Standards on Auditing, which require the application of ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit.

We also:

- identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- evaluate the overall presentation, structure, and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision, and performance of the group audit. We remain solely responsible for our audit opinion.

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

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

From the matters communicated with the Audit Committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

Comments on the management report for the Group

Pursuant to Austrian generally accepted accounting principles, the group management report is to be audited as to whether it is consistent with the consolidated financial statements and as to whether it was prepared in accordance with the applicable legal regulations.

Management is responsible for the preparation of the Group's management report in accordance with Austrian Generally Accepted Accounting Principles.

We conducted our audit in accordance with Austrian Standards on Auditing for the audit of the Group's management report.

Opinion

In our opinion, the management report for the group was prepared in accordance with the valid legal requirements, comprising the details in accordance with section 243a UGB (Austrian Company Code) and is consistent with the consolidated financial statements.

Statement

Based on the findings during the audit of the consolidated financial statements and due to the thus obtained understanding concerning the Group and its circumstances no material misstatements in the Group's management report came to our attention.

Additional information in accordance with article 10 of the EU regulation

We were elected as auditor by the ordinary general meeting at 1 June 2023. We were appointed by the Supervisory Board on 18 September 2023. We are auditors without cease since 2018.

We confirm that the audit opinion in the section "Report on the consolidated financial statements" is consistent with the additional report to the audit committee referred to in article 11 of the EU regulation.

We declare that no prohibited non-audit services (article 5 par. 1 of the EU regulation) were provided by us and that we remained independent of the audited company in conducting the audit.

Responsible Austrian certified public accountant

The engagement partner on the audit resulting in this independent auditor's report is Mr. Gerhard Posautz, Certified Public Accountant.

Vienna, 12 March 2024



BDO Assurance GmbH
Wirtschaftsprüfungs- und Steuerberatungsgesellschaft

Gerhard Posautz
Auditor

Gerhard Fremgen
Auditor

Statement by all legal representatives

We confirm to the best of our knowledge that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position, and profit or loss of the Group as required by the applicable accounting standards and that the Group management report gives a true and fair view of the development and performance of the business and the position of the Group, together with a description of the principal risks and uncertainties the Group faces.

Vienna, 11 March 2024



Norbert Haslacher
Chairman
of the Executive Board



Monika Haselbacher
Member
of the Executive Board



Hermann Mattanovich
Member
of the Executive Board



Peter Skerlan
Member
of the Executive Board