Group Management Report as at 31 December 2021

Economic environment

Compared with 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 2022.[1] Despite the pandemic, it estimates that global GDP grew by 5.9% in 2021 and is forecasting growth of 4.4% in 2022.

The IMF expects growth to slow as economies face challenges in the supply chain, higher inflation, record levels of debt, and continued uncertainty. The supply chain challenges and the resulting disruption to supply are continuing to act as a drag on economic activity and are contributing to rising inflation, which is compounded by high demand and rising food and energy prices. In addition, record levels of debt and rising inflation are hampering many countries' ability to cope with renewed disruption to economic activity. However, some of the challenges could prove more short-lived than others. The new omicron variant of COVID-19 seems to result in less severe illness than the delta variant and the record rise in infection rates should drop back relatively quickly.

The IMF considers that its projections for 2022 will have to be revised downward as a result of the impact of the war in Ukraine.[2].

For the USA, the IMF is projecting growth of 5.6% in 2021 (2022: 4.0%). It forecasts that the economy in the euro zone will grow by 5.2% in 2021 (2022: 3.9%). Growth rates in the major economies in the euro zone differ in 2021 and 2022: the growth projections for 2021 are 2.7% for Germany (2022: 3.8%), 6.7% for France (2022: 3.5%), 6.2% for Italy (2022: 3.8%), and 4.9% for Spain (2022: 5.8%). The forecast for the UK is 7.2% growth in 2021 (2022: 4.7%).

For the emerging and developing economies in Asia, the projected growth rate is 7.2% for 2021 (2022: 5.9%). The IMF estimates that growth was 6.8% in Latin America in 2021 (2022: 2.4%). The estimate for the Middle East and Central Asia is 4.2% growth in 2021 (2022: 4.3%).

[1] www.imf.org/en/Publications/WEO/Issues/2022/01/25/world-economic-outlook-update-january-2022
[2] www.imf.org/en/News/Articles/2022/03/10/tr031022-transcript-of-imf-media-roundtable-on-ukraine

Business performance

The COVID-19 pandemic continued to influence Frequentis' operating business in 2021. Thanks to the Group´s stable business model as a provider of communication and information solutions for control centres in the safety-critical area, demand did not deteriorate. The good business performance of the companies acquired from L3Harris Technologies in 2021 and the profitable project business enabled Frequentis to continue to grow despite the restrictions on travel.

Significant events in 2021

Acquisition of the air traffic management (ATM) product lines from L3Harris Technologies, Inc.

On 23 February 2021, Frequentis signed an agreement to acquire the civil and military ATM voice communications product lines and software and cloud solutions for air traffic optimisation (traffic synchronisation) of the US group L3Harris Technologies, Inc. (subsequently referred to as L3Harris). The transaction comprised:

- the acquisition of 100% of the shares in Harris Orthogon GmbH, Bremen, Germany (closing 30 April 2021, now Frequentis Orthogon GmbH),
- the assumption of a customer contract between L3Harris and the British air navigation service provider NATS (contract transferred on 28 May 2021),
- the acquisition of the Harris ATC Solutions business unit based in Gatineau, Canada, which Harris Canada Systems, Inc. first transferred to a Canadian company established specifically for the purpose of this transaction; Frequentis then acquired all shares in the new company (closing: 28 May 2021, now Frequentis Canada ATM Ltd), and
- the acquisition of 100% of the shares in Harris C4i Pty. Ltd., Melbourne, Australia (closing 30 July 2021, now C4i Pty Ltd.).

This transaction extends the Frequentis' ATM product portfolio. After deduction of the cash and cash equivalents acquired, the cost of this transaction was EUR 16.3 million. The new units contributed around EUR 19 million to consolidated revenues in 2021. For details see ↗ *Consolidated financial statements* as at 31 December 2021, note 1.

COVID-19 pandemic

The outbreak of the COVID-19 pandemic at the start of the 2020 financial year triggered a global economic crisis. Frequentis could not completely avoid the general economic developments. However, it supplies safety-critical infrastructure, which has to be upheld and maintained even in periods of crisis.

With a few exceptions, it was possible to continue business unchanged in 2021 despite the restrictions. Frequentis Group staff had performed many activities on a mobile basis in the past, so switching to fully remote working (e.g. from home) was possible without major difficulties (with the exception of manual work performed on-site at some locations or on customers' premises). Since the ability to travel outside the countries in which the Frequentis Group has locations was very restricted, many project acceptance procedures with customers were performed using video conferencing, with additional technical and organisational support.

Impact on revenues and expenses
Where the project team was unable to complete work due to lockdowns or travel restrictions, postponement of the acceptance dates was agreed with some customers. In addition, longer payment terms were negotiated in some cases.

As in 2020, travel restrictions prevented many business trips. Although travel expenses were higher than in 2020, they were nevertheless lower than before the pandemic.

Due to the COVID-19 pandemic, the Frequentis Group assessed whether there is an indication that an asset is impaired. Indications of an impairment in connection with the COVID-19 pandemic were identified at one company and recognised accordingly (see ↗ *Consolidated financial statements* as at 31 December 2021, note 18).

Measures taken
To evaluate and mitigate any impact on Frequentis, the special crisis team set up under the chairmanship of the CEO in 2020 remained in place in 2021. This team defined various measures to maintain operations without interruption wherever possible. Working from home and other measures to drive forward customers' projects and maintain supply chains remained effective.

For details see ↗ *Consolidated financial statements* as at 31 December 2021, note 2.

Order intake

Order intake in the Frequentis Group was EUR 333.2 million in 2021, an increase of 5.9% compared with 2020 (EUR 314.6 million). Unlike the situation in 2020, order intake was stronger in the second half of 2021 than in the first half of the year, in line with the previous pattern. In 2021, the ratio of orders placed in the second six months versus the first six months was 53% : 47% (2020: 45% : 55%).

The distribution of order intake between the two segments in 2021 was as follows: Air Traffic Management 69% (2020: 64%), Public Safety & Transport 31% (2020: 36%).

Highlights of order intake in the Air Traffic Management segment

Frequentis' Air Traffic Management segment acquired a variety of orders. Under an agreement in connection with the transaction with L3Harris, Frequentis took over the contract with NATS (British air navigation service provider) for the delivery of the main voice communication and arrival management system.

EUROCONTROL extended the contract with Frequentis for the release development, IT service management, and operations contracts of the European Aeronautical Information Management Database (EAD).

Frequentis is partnering with Indra on the digitalisation of EUROCONTROL's integrated network management. All current Network Manager operational systems are to be replaced by new digital products that harness big data, artificial intelligence/machine learning, and cloud computing.

Further orders were secured, among others, from the Swiss air navigation service provider skyguide to extend collaboration on the Virtual Centre. Bahrain ordered voice communication systems to modernise its air traffic control centre.

Together with long-term partners, Frequentis acquired interesting orders in Dubai and France. Two D-ATIS (digital automated terminal information services) systems are to be supplied for Dubai International Airport and Dubai World Central. An IP-based radio/telephone voice communication system for 14 air traffic control approach and tower control centres is to be supplied to the French air navigation service provider DSNA on the basis of a 20-year contract.

In the Defence business domain, Frequentis Canada received an order from the Royal Canadian Airforce’s main contractor, Thales Canada, for mission-critical tactical control radar communications equipment.

Installed base business with established customers developed favourably, especially in Europe. For example, Frequentis secured an order from the Polish armed forces for the modernisation of the air defence centre.

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 thanks to an order to supply a police communications system for the federal state of Saarland. Furthermore, the cities of Lübeck and Rostock have placed an order to replace the emergency call and radio system for their control centres.

In the Public Transport business domain, orders were mainly secured from the installed base in Europe. As well as orders for releases and upgrades, these include expansion and maintenance contracts.

In the Maritime business domain, Frequentis was awarded the order for control centre communications for the coastguard in New South Wales, Australia.

Orders on hand

Orders on hand as at 31 December 2021 amounted to EUR 467.9 million, an increase of 9.4% or EUR 40.3 million compared with year-end 2020 (EUR 427.6 million). The Air Traffic Management segment accounted for around 64% of total orders on hand (December 2020: 58%) and the Public Safety & Transport segment for 36% (December 2020: 42%).

Revenues and operating performance

Despite the ongoing impact of the COVID-19 pandemic, in 2021 revenues rose to EUR 333.5 million in 2021 (2020: EUR 299.4 million). That was an increase of 11.4% or EUR 34.2 million. Around EUR 19 million of this increase came from the units acquired in the course of the L3Harris transaction.

In the Air Traffic Management segment, revenues increased by 8.2% to EUR 219.8 million and in the Public Safety & Transport segment revenues grew by 18.0% to EUR 113.6 million. The revenue split between the Air Traffic Management and Public Safety & Transport segments was 66% : 34% in 2021 (2020: 68% : 32%).

Looking at the regional revenue split, in 2021 Europe accounted for 68% (2020: 66%), the Americas for 15% (2020: 16%), Asia for 9% (2020: 11%), Australia/Pacific for 5% (2020: 5%), and Africa for 2% (2020: 1%). 1% (2020: 1%) of revenues were not allocated to a region.

The other operating income increased to EUR 9.5 million (2020: EUR 8.6 million). The biggest single items here are grants and subsidies for research and development costs and income from research subsidies.

The profit of EUR 2.0 million from business combinations resulted from the acquisition of the ATC Solutions business unit of Harris Canada Systems Inc. and Harris C4i Pty. Ltd. For further information, see ↗ *Consolidated financial statements* as at 31 December 2021, note 1.

The operating performance increased by 12.0% to EUR 344.8 million in 2021 (2020: EUR 307.9 million).

Earnings

The cost of materials and purchased services increased by 0.9% to EUR 75.7 million (2020: EUR 75.0 million). While the cost of materials declined due to the lower material-intensity of projects, the cost of purchased services rose. Personnel expenses increased by 15.3% to EUR 182.1 million (2020: EUR 157.9 million). This was attributable to the increase in the headcount (+13.1%, mainly as a result of the new companies in the consolidated group), higher provisions for bonuses, and salary rises.

The other operating expenses rose by 22.6% to EUR 40.5 million (2020: EUR 33.0 million). Multi-year comparison: in 2019, before the outbreak of the COVID-19 pandemic, the other operating expenses were EUR 43.7 million, mainly because travel expenses were higher. Travel expenses amounted to EUR 5.4 million in 2021 (2020: EUR 4.1 million; 2019: EUR 11.9 million).

As in 2020, travel restrictions prevented many business trips in 2021, so travel expenses have settled at a low level. It should be noted that savings on this scale will not be repeated in the future because complete digitalisation of on-site acceptance procedures, training, trade shows, and sales activities is not possible. Much will depend on the extent to which projects and sales activities can be carried out virtually in the future or whether, when the pandemic is contained, customers, suppliers, and business partners move back towards presence-based activities.

In addition to the rise in travel expenses, there was an increase, among other things, in the fair value of forward exchange contracts and other consulting expenses. The year-on-year reduction in the legal and consulting expenses was mainly due to the higher costs incurred in 2020 for the lawsuits filed in connection with Commerzialbank Mattersburg.

EBITDA (earnings before interest, taxes, depreciation, amortisation, and impairment losses) improved by EUR 4.6 million to EUR 46.5 million in 2021 (2020: EUR 41.9 million). The EBITDA margin (relative to revenues) was 13.9%, compared with 14.0% in 2020.

Depreciation and amortisation increased by EUR 1.8 million to EUR 15.8 million (2020: EUR 14.0 million), principally due to the new companies in the consolidated group. In 2021, an impairment loss of EUR 1.7 million was recognised on the goodwill of ATRiCS Advanced Traffic Solutions GmbH, Germany (2020: EUR 1.1 million for Systems Interface Ltd., UK).

Despite the COVID-19 pandemic, as a result of all the above changes, EBIT increased by EUR 2.2 million to EUR 29.0 million in 2021 (2020: EUR 26.8 million). The EBIT margin (relative to revenues) was 8.7%, compared with 9.0% in 2020.

Profit before tax was EUR 27.9 million in 2021 (2020: loss before tax of EUR 4.4 million; this and the following comparative amounts for 2020 were affected by the impairment loss on deposits following the insolvency of Commerzialbank Mattersburg). Income tax expense was EUR 7.2 million, whereas income tax income of EUR 1.0 million was recorded in 2020.

In 2021, the Group reported a profit for the period of EUR 20.8 million, compared with a loss of EUR 3.4 million in 2020. Basic and diluted earnings per share were EUR 1.50 in 2021 (2020: EUR -0.30).

Employees

The headcount increased by 13.1% to an average of 2,157 employees in 2021 (including the additional employees from the transaction with L3Harris) (2020: 1,907 employees).

Asset and capital structure

Total assets increased by 13.7% (EUR 38.1 million) to EUR 315.7 million as at end-December 2021 (year-end 2020: EUR 277.6 million). The equity ratio was 41.1% (year-end 2020: 40.1%). Equity rose by 16.5% to EUR 129.9 million (year-end 2020 / restated: EUR 111.4 million).

The net cash position (cash and cash equivalents and time deposits less liabilities to banks and other financial liabilities) was EUR 101.1 million as at end-December 2021, which was above the net cash position of EUR 85.0 million recorded at year-end 2020.

On the asset side, non-current assets amounted to EUR 72.6 million at end-December 2021 (year-end 2020: EUR 62.2 million). The two largest items within non-current assets were property, plant, and equipment, which totalled EUR 47.7 million (year-end 2020: EUR 46.6 million), and intangible assets which amounted to EUR 17.7 million (year-end 2020: EUR 9.0 million).

Current assets totalled EUR 243.1 million at end-December 2021 (year-end 2020: EUR 215.4 million). The principal item here is cash and cash equivalents, including time deposits, which amounted to EUR 106.0 million (year-end 2020: EUR 91.3 million), followed by trade accounts receivable totalling EUR 69.4 million (year-end 2020: EUR 59.3 million) and contract assets from contracts with customers, which amounted to EUR 38.4 million (year-end 2020: EUR 38.4 million). More than 75% of the cash and cash equivalents and time deposits as at end-December 2021 were spread among eleven system-relevant major banks in Austria and Germany. Less than 25% was deposited with approximately 20 other banks in Europe, Australia, Asia, and the Americas.

On the liabilities side of statement of financial position, the main item was equity of EUR 129.9 million as at end-December 2021 (year-end 2020: EUR 111.4 million). The second largest item was current liabilities of EUR 125.2 million at end-December 2021 (year-end 2020: EUR 107.2 million). In particular, contract liabilities from contracts with customers amounted to EUR 65.4 million (year-end 2020: EUR 62.8 million).

Non-current liabilities (third largest item in the statement of financial position) totalled EUR 60.6 million (year-end 2020 / restated: EUR 59.0 million). The biggest item within non-current liabilities was non-current lease liabilities, which totalled EUR 29.8 million (year-end 2020: EUR 31.8 million).

Cash flow

The cash flow from operations increased to EUR 47.9 million in 2021 (2020: EUR 42.4 million).

The cash flow from operating activities decreased to EUR 48.8 million in 2021 (2020: EUR 54.8 million), mainly due to the changes in contract liabilities and contract assets, and the line item income taxes paid/refunded.

The cash outflow for investing activities was EUR 24.6 million in 2021 (2020: EUR 7.0 million). This was principally due to the transaction with L3Harris: after deduction of the cash and cash equivalents acquired, this transaction resulted in an outflow of EUR 16.3 million. Capital expenditures (cash outflows for the purchase of intangible assets, property, plant, and equipment) were EUR 6.3 million, which was above the capital expenditures of EUR 4.5 million in 2020.

The cash outflow for financing activities was EUR 12.6 million in 2021 (2020: cash outflow of EUR 10.1 million).

The total cash flow resulting from the changes recorded in 2021 was EUR 11.5 million (2020: EUR 37.7 million). Cash and cash equivalents, excluding time deposits, amounted to EUR 103.8 million as at end-December 2021 (year-end 2020: EUR 91.3 million).

Business relations with related parties

For details see ↗ *Consolidated financial statements* as at 31 December 2021, note 38.

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.

Revenues in the Air Traffic Management segment increased by 8.2% to EUR 219.8 million in 2021 (2020: EUR 203.1 million). EBIT dropped to EUR 12.5 million (2020: EUR 14.6 million).

Highlights from the operating business

Despite the challenging conditions of the pandemic, a number of important project acceptances took place. Examples are the optimised network for air traffic management for the air traffic control organisation in Kazakhstan and the voice communication and DIVOS recording systems for all Argentinian flight information regions. In Denmark, the concept for a digital tower project was approved by the Danish air navigation service provider, Naviair. The operating and verification tests for the first military remote digital tower in the USA were successfully completed.

The kick-off of the GOF 2.0 project – part of the EU's SESAR programme –, which focuses on flight tests for drones and air taxis in complex, urban airspace, took place.

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 operators.

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 18.0% to EUR 113.6 million in 2021 as a result of successful product acceptances (2020: EUR 96.3 million). EBIT improved to EUR 16.6 million (2020: EUR 12.3 million), mainly due to higher-margin projects.

Highlights from the operating business

In the Public Safety business domain, the role of the ELKOS deployment control and communication solution for the police force in all nine federal provinces of Austria was completed. Key certifications and interim acceptances took place for the new Emergency Services Network (ESN) ordered by the Home Office in the UK.

Further milestones were achieved in rail projects in the Public Transport business domain, for example for Irish Rail. The Maritime business domain also reported important project acceptances.

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 the Frequentis corporate strategy. All related activities are managed by the New Business Development department. 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.

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 http: //www.frequentis.com/en/ir > Investor Relations > 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 our 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 sound risk management policy, a Group-wide risk management system, an extensive internal control (ICS) system, and an Internal Audit department. Breaches of compliance can constitute a considerable risk for any company. To simplify the communication channels that can be used internally and externally to report such breaches, Frequentis has established a whistleblower system at Group level. 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.

Essentially, Frequentis systematically evaluates and summarises the strategy, the prevailing competitive landscape, the political situation in the countries with the greatest project exposure, the organisation ensuring professional project execution, and liquidity management. The resulting measures to utilise opportunities and reduce any risks identified are discussed by an extended management circle and the appropriate action is decided on. The Director of Corporate Finance is responsible for this process.

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 2022, BDO Austria 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.

Risk relating to the COVID-19 (coronavirus) pandemic

The ongoing development of the pandemic could continue to 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, as has been seen in connection with the spread of coronavirus, 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 products 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.

Risks relating to the (macro)economic and political environment

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.

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 many of its subsidiaries.

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.

Risks relating to Frequentis' industry and business

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 a business 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.

Impact of climate change.
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 climate change.

Cyberattacks.
Given that Frequentis' business is heavily dependent on IT security, cyberattacks could pose a substantial risk to the company's 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.

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 few or only one potential customer per country is available, the Frequentis Group's dependency on such customers increases.

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.

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.

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.

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.

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.

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

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.

Further risks in this area

- Uncertain, delayed, or deferred orders.
- Non-negotiable contract terms in public tender processes and, in particular, unlimited liability clauses in public-sector contracts.
- Malfunctioning of products and product shortcomings.
- Embargoes and other trade restrictions.
- Generation of inadequate cash flows from operating activities to finance liquidity and net working capital requirements.
- Loss of key personnel and failure to attract qualified employees.
- Fluctuation of raw material and energy prices and labour costs.
- Rising cost pressure triggered, in particular, by competitors in low-wage countries.
- Loss of suppliers or interruptions or bottlenecks in the supply of the Group's services, software programs, component parts, sub-assemblies, or raw materials.
- Fluctuations in exchange rates and rising interest rates.
- Failure to deal successfully with the challenges of (organic) growth, and excess capacities or capacity shortages in Frequentis' organisational units.

Regulatory, legal, and tax 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.
- Compliance-related risks.

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 several major 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, Corporate 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 CEO. 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.

Information pursuant to Section 243a (1) UGB

1. The share capital of Frequentis AG was EUR 13,280,000.00 as at 31 December 2021 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 2021, the company held 15,500 treasury shares, which was 0.12% of the share capital. In conformance with Section 65 (5) of the Austrian Companies Act (AktG), the 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 been concluded between Frequentis Group Holding GmbH and B&C Holding Österreich GmbH.

3. As at 31 December 2021, 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 2021.

4. As at 31 December 2021, 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 chairman of the Supervisory Board. The chairman'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 the articles of association or from other capital measures.

7. Under the resolution of the Annual General Meeting of 8 April 2019, the Executive Board is authorised, subject to the approval of the Supervisory Board, to increase the company's share capital up to 7 April 2024 by up to EUR 4,720,000 (four million seven hundred and twenty thousand) by issuing up to 4,720,000 (four million seven hundred and twenty thousand) new 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 was authorised by the Extraordinary General Meeting of 20 September 2019, 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 many 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 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. Based on this authorisation, 15,500 shares (0.12% of the share capital) was purchased in 2021.

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

In 2021, the second year of the pandemic, Frequentis was again able to use its strengths in digitalisation. In this context, it benefited from customers' high confidence in the company, and the fact that installations and a considerable proportion of project acceptances could be performed remotely, despite the travel restrictions. The company was helped by its global presence with locations in a number of countries.

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. That has not changed. The business model once again demonstrated its sustained resilience.

The goal of increasing revenues and order intake was achieved: revenues rose 11.4% to EUR 333.5 million and order intake was 5.9% higher at EUR 333.2 million. EBIT was EUR 29.0 million and the EBIT margin was 8.7%.

Acquisitions

Frequentis has extended its product portfolio in the Air Traffic Management segment by acquiring the civil and military ATM voice communications product lines and software and cloud solutions for air traffic optimisation (traffic synchronisation) of the US group L3Harris Technologies, Inc. The transaction comprised the acquisition of units in Australia, Germany, and Canada. In 2021, they contributed around EUR 19 million to consolidated revenues. In the first full year of consolidation, i.e., 2022, this transaction is expected to generate additional revenues of around EUR 10 million.

At the start of 2022, Frequentis continued its growth strategy in the public safety domain by acquiring a 51% stake in the Italian company Regola. Regola offers innovative software solutions such as an integrated control room solution to improve the emergency response of teams in the area of public safety. Regola's command and control (CAD) solutions complement Frequentis' portfolio in the area public safety and adjacent markets. The aim is to step up international marketing.

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.

Forecast for 2022

Despite global measures to contain the pandemic and good availability of vaccines, Frequentis faces a number of uncertainties in 2022. It is not possible to make a reliable estimate of the exact effect of the ongoing pandemic on costs (e.g. travel expenses), revenues (e.g. due to the deferral of project acceptances), supply chains, the budgets available, and the potential postponement of investments.

Frequentis has only minimum business activities in Russia, Belarus, and Ukraine. Revenues in these countries together amount to less than 1% of consolidated revenues. Potential widening of the war in Ukraine and the global macro-economic uncertainty resulting from the conflict also have to be taken into consideration. That includes, for example, the availability of energy, the development of raw material costs, and general inflation.

Depending on the aspects outlined above, Frequentis aims to increase revenues and order intake in 2022 compared with 2021. Some of the increase will be attributable to the L3Harris transaction because in 2022 the entities acquired will make a contribution to revenues and order intake from the beginning of the year. Around EUR 7 million has been earmarked for capital expenditure (capex).

Frequentis expects to report an EBIT margin of around 6-8% in 2022 – depending on how the pandemic develops, the macro-economic situation and the outstanding post-merger integration costs for the L3Harris units.

Vienna, 14 March 2022

Consolidated financial statements

as at 31 December 2021

Consolidated income statement

	Note	2021 EUR thousand	2020 EUR thousand
Revenues	**(3) (4)**	**333,526**	**299,374**
Change in inventories of finished goods and work in progress	(3)	-202	-272
Own work capitalised	(3) (5)	92	216
Other operating income	(3) (6)	9,451	8,559
Profit from business combinations	(1)	1,951	0
Total income (operating performance)		**344,818**	**307,877**
Cost of materials and purchased services	(7)	-75,696	-75,012
Personnel expenses	(8)	-182,137	-157,932
Other operating expenses	(9)	-40,479	-33,016
Earnings before interest, taxes, depreciation, amortisation, and impairment losses (EBITDA)		**46,506**	**41,917**
Depreciation of property, plant, and equipment and amortisation of intangible assets	(10)	-15,808	-14,037
Impairment loss on goodwill	(18)	-1,730	-1,072
Earnings before interest and taxes (EBIT)	**(3)**	**28,968**	**26,808**
Financial income	(11)	79	94
Financial expenses	(12)	-607	-615
Net change in impairment losses on financial assets	(13)	-857	-30,923
Earnings from investments accounted for at equity	(19)	342	214
Profit/loss before tax		**27,925**	**-4,422**
Income taxes	(14)	-7,158	1,033
Profit/loss for the period		**20,767**	**-3,389**
Profit/loss attributable to:			
Equity holders of the company		**19,970**	**-4,036**
Non-controlling interests	(30)	**797**	**647**
		20,767	**-3,389**
Basic earnings per share	(15)	**1.50**	**-0.30**
Diluted earnings per share	(15)	**1.50**	**-0.30**

Consolidated statement of comprehensive income

	Note	2021 EUR thousand	2020 EUR thousand
Profit/loss for the period		**20,767**	**-3,389**
Items that may be reclassified to the income statement in subsequent periods			
Foreign currency translation	(28)	1,117	-784
Measurement of cash flow hedges	(28) (36)	-298	736
Income taxes relating to cash flow hedges	(28)	74	-184
Items that may not be reclassified to the income statement			
Remeasurement of post-employment benefits	(28) (31)	-169	-703
Investments accounted for at equity – amounts recognised in other comprehensive income	(28)	0	-1
Income taxes in connection with the remeasurement of post-employment benefits	(28)	23	176
Other comprehensive income, net of tax		**747**	**-760**
Total comprehensive income		**21,515**	**-4,149**
Total comprehensive income attributable to:			
Equity holders of the company		**20,755**	**-4,813**
Non-controlling interests		**760**	**664**
		21,515	**-4,149**

Consolidated statement of financial position

ASSETS	Note	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
Non-current assets			
Property, plant, and equipment	(16)	47,717	46,605
Intangible assets	(17)	17,717	9,020
Goodwill	(18)	3,433	2,886
Investments accounted for at equity	(19)	1,656	1,509
Equity instruments	(20)	0	863
Other non-current financial assets		241	228
Deferred tax assets	(14)	1,849	1,092
		72,613	**62,203**
Current assets			
Inventories	(22)	17,077	12,628
Trade accounts receivable	(23)	69,435	59,318
Contract assets from contracts with customers	(24)	38,353	38,420
Contract costs	(25)	3,712	3,029
Other current financial assets	(26)	672	2,750
Other current non-financial assets	(26)	7,389	7,524
Income tax receivables		448	481
Time deposits	(21)	2,199	0
Cash and cash equivalents	(21)	103,798	91,265
		243,083	**215,415**
Total assets		**315,696**	**277,618**

LIABILITIES AND EQUITY	Note	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
Shareholders' equity			
Share capital	(27)	13,280	13,280
Capital reserves	(28)	21,138	21,138
Retained earnings	(28) (29)	92,274	74,676*)
Treasury shares		-384	0
Adjustments for foreign currency translation		106	-1,053
Equity attributable to equity holders of the parent company		**126,414**	**108,041**
Non-controlling interests	(30)	3,436	3,382*)
Total shareholders' equity		**129,850**	**111,423**
Non-current liabilities			
Liabilities to banks and other financial liabilities		3,820	4,907
Provisions	(31)	19,992	17,212
Lease liabilities	(37)	29,785	31,811
Other non-current financial liabilities	(33)	858	3,278*)
Deferred tax liabilities	(14)	6,166	1,831
		60,621	**59,039**
Current liabilities			
Liabilities to banks and other financial liabilities		1,085	1,315
Contract liabilities from contracts with customers	(32)	65,388	62,849
Trade accounts payable		13,422	11,923
Lease liabilities	(37)	7,794	7,292
Other current financial liabilities	(33)	4,996	1,600
Other current non-financial liabilities	(33)	10,133	6,617
Current tax liabilities		4,992	1,981
Provisions	(34)	17,415	13,579
		125,225	**107,156**
Total shareholders' equity and liabilities		**315,696**	**277,618**

*) Comparative amounts restated, see Note 2. Accounting policies – Correction of errors

Consolidated cash flow statement

	Note	2021 EUR thousand	2020 EUR thousand
Profit/loss before tax		27,925	-4,422
Net interest income/expense		529	521
Foreign currency translation		-91	-222
Profit/loss from the disposal of non-current assets		13	34
Depreciation of property, plant, and equipment, amortisation of intangible assets, and impairment loss on goodwill and investments	(13) (16) (17)	18,401	15,109
Earnings from investments accounted for at equity	(19)	-342	-214
Change in provisions	(31) (34)	3,860	483
Impairment loss on time deposits at Commerzialbank Mattersburg	(13)	0	17,995
Impairment loss on current account deposits (due on demand) at Commerzialbank Mattersburg	(13)	0	12,718
Impairment loss on interest receivables from Commerzialbank Mattersburg	(13)	0	205
Profit from business combinations	(1)	-1,951	0
Income from changes in variable purchase prices	(33)	-850	0
Other non-cash income/expenses		363	170
Net cash flow from operations		**47,857**	**42,377**
Change in inventories	(22)	-2,902	1,177
Change in trade accounts receivable	(23)	-6,139	879
Change in contract assets	(24)	8,565	279
Change in contract costs	(25)	-550	-479
Change in other receivables	(26)	3,402	-2,448
Change in trade accounts payable		1,340	-1,258
Change in contract liabilities	(32)	-1,388	13,781
Change in other liabilities	(33)	2,482	-2,725
Change in net working capital		**4,810**	**9,206**
Interest paid		-608	-618
Interest received		83	87
Dividends received		195	144
Income taxes paid/refunded	(14)	-3,584	3,556
Net cash flow from operating activities		**48,753**	**54,752**

	Note	2021 EUR thousand	2020 EUR thousand
Cash inflows from the sale of intangible assets		7	7
Cash inflows from the sale of property, plant and equipment		4	64
Cash inflows from the sale of securities and equity instruments		0	6
Cash outflows for the purchase of intangible assets		-2,456	-1,564
Cash outflows for the purchase of property, plant and equipment		-3,883	-2,970
Cash outflows for time deposits		-2,006	0
Cash outflows for the acquisition of associated companies		0	-707
Cash outflows for the acquisition of subsidiaries, less acquired cash and cash equivalents		-16,279	-1,849
Net cash flow from investing activities		**-24,613**	**-7,013**
Dividends paid to owners	(27)	-1,990	-1,992
Dividends paid to non-controlling interests	(30)	-603	-427
Cash inflows from capital increase	(27)	0	1,324
Cash outflows for transaction costs for the capital increase	(27)	0	-109
Purchase of treasury shares	(27)	-384	0
Cash inflows from non-controlling interests		0	122
Cash inflows from loans and other financing		0	455
Cash outflows for repayment of loans and other financing		-1,400	-1,821
Cash outflows for payments of principal on lease liabilities	(37)	-8,228	-7,633
Net cash flow from financing activities		**-12,605**	**-10,081**
Change in cash and cash equivalents:			
Net cash flow from operating activities		48,753	54,752
Net cash flow from investing activities		-24,613	-7,013
Net cash flow from financing activities		-12,605	-10,081
Net change in cash and cash equivalents		**11,535**	**37,658**
Cash and cash equivalents at start of period		**91,265**	**66,882**
Cash-flow related change in cash and cash equivalents		11,535	37,658
Foreign currency translation		992	-556
Impairment loss on current account deposits (due on demand) at Commerzialbank Mattersburg		0	-12,718
Other loss allowances		6	-1
Cash and cash equivalents at end of period		**103,798**	**91,265**

For further information on the consolidated cash flow statement, see Note 35.

Consolidated statement of changes in shareholders' equity

in EUR thousand	Share capital	Capital reserves	IAS 19 reserve (net of tax)	Option reserve (net of tax)	Cash flow hedge reserve (net of tax)	Retained earnings	Treasury shares	Foreign currency translation	Equity attributable to equity holders of the parent company	Non-controlling interests	Total share-holders' equity
Note	(27)	(28)	(31)	(29)	(36)	(28)	(27)			(30)	
As at 1 January 2021	13,280	21,138	-6,133	232	-123	80,699		-1,053	108,041	3,382	111,423
Profit/loss for the period						19,970			19,970	797	20,767
Other comprehensive income			-151		-223			1,159	785	-37	747
Total comprehensive income			-151		-223	19,970		1,159	20,754	760	21,515
Dividends						-1,990			-1,990	-603	-2,593
Purchase of treasury shares							-384		-384		-384
Changes in connection with put options						-377			-377	-103	-480
Other changes				370					370		370
As at 31 December 2021	**13,280**	**21,138**	**-6,284**	**602**	**-346**	**98,302**	**-384**	**106**	**126,414**	**3,436**	**129,850**

in EUR thousand	Share capital	Capital reserves	IAS 19 reserve (net of tax)	Option reserve (net of tax)	Cash flow hedge reserve (net of tax)	Retained earnings	Foreign currency translation	Equity attributable to equity holders of the parent company	Non-controlling interests	Total share-holders' equity
Note	(27)	(28)	(31)	(29)	(36)	(28)			(30)	
As at 1 January 2020	13,200	19,976	-5,608	63	-675	87,911	-249	114,618	1,568	116,186
Changes due to the correction of errors						-538		- 538	-168	-706
Restated amount as at 1 January 2020	13,200	19,976	-5,608	63	-675	87,373	-249	114,080	1,400	115,480
Changes due to acquisitions									1,824	1,824
Capital increase	80	1,244						1,324		1,324
Costs of the capital increase		-109						-109		- 109
Related income taxes		27						27		27
Cash inflows from non-controlling interests									122	122
Profit/loss for the period						-4,036		-4,036	647	-3,389
Other comprehensive income			-525		552		-804	- 777	17	- 760
Total comprehensive income			-525		552	-4,036	-804	-4,813	664	-4,149
Dividends						-1,992		-1,992	-427	-2,419
Changes in connection with put options						-650		-650	-201	-851
Other changes				169		4		173		173
As at 31 December 2020	13,280	21,138	-6,133	232	- 123	80,699	-1,053	108,041	3,382	111,423

Notes to the consolidated financial statements

1. General information

Reporting

The consolidated financial statements of Frequentis AG for the 2021 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 International Financial Reporting Interpretations Committee (IFRIC) that were mandatory for 2021 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 Innovationsstrasse 1, 1100 Vienna, Austria, and its subsidiaries (subsequently referred to as 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 2021.

The financial year is 1 January to 31 December 2021.

In the reporting period, the Executive Board comprised:

- Norbert Haslacher, Chairman
- Sylvia Bardach, until 15 April 2021
- Hermann Mattanovich
- Peter Skerlan, from 16 April 2021

In the reporting period, the Supervisory Board comprised:

- Johannes Bardach, Chairman
- Dr. Karl Michael Millauer, Deputy Chairman
- Sylvia Bardach, member (since 20 May 2021)
- Reinhold Daxecker, member
- Dr. Boris Nemsic, member
- Petra Preining, member
- Siegfried Meisel, member pursuant to Section 110 of the Austrian Labour Relations Act (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 30 March 2022.

Consolidated group

Besides Frequentis AG, which is the parent company of the consolidated group, the consolidated financial statements of Frequentis AG include 6 (2020: 6) domestic subsidiaries and 26 (2020: 23) 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.

3 (2020: 3) foreign companies and 2 (2020: 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**

- BlueCall Systems 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 (51%)
- ELARA Leitstellentechnik GmbH, Aachen (51%)
- Frequentis Comsoft GmbH, Karlsruhe (100%)
- Frequentis Czech Republic s.r.o., Prague (100%)
- Frequentis Deutschland GmbH, Langen (100%)
- Frequentis France SARL, Toulouse (100%)
- Frequentis Norway AS, Oslo (100%)
- Frequentis Orthogon GmbH, Bremen (100%)
- Frequentis Romania S.R.L., Cluj-Napoca (100%)
- Frequentis Solutions & Services s.r.o., Bratislava (100%)*
- Frequentis UK Ltd., Twickenham (100%)
- Secure Service Provision GmbH, Leipzig (80%)
- Systems Interface Ltd., Bordon (51%)
- TEAM Technology Management GmbH, Gräfelfing (51%; effective shareholding 26%)

c) **Fully consolidated subsidiaries in the Americas**
- Frequentis California Inc., Columbia (100%)
- Frequentis Canada ATM Ltd., Gatineau (100%)
- Frequentis Canada Ltd., Ottawa (100%)
- Frequentis Defense Inc., Columbia (100%)
- Frequentis do Brasil Assessoria, Serviços e Comércio de Sistemas de Informação e Comunicação Ltda., São Paulo (100%)
- Frequentis USA Inc., Columbia (100%)

d) **Fully consolidated subsidiaries in Asia**
- Frequentis Middle East Limited, Abu Dhabi (100%)
- Frequentis (Shanghai) Co. Ltd., Shanghai (100%)
- Frequentis Singapore Pte. Ltd., Singapore (100%)

e) **Fully consolidated subsidiaries in Australia/Pacific**
- C4i Pty Ltd, Melbourne (100%)
- Frequentis Australia Holding Pty Ltd, Hendra (100%)
- Frequentis Australasia Pty Ltd, Hendra (100%)

f) **Companies accounted for using the equity method**
- AIRlabs Austria GmbH, Graz (18%)
- AIRNAV Technology Services Inc., Iloilo (40%)
- GroupEAD Europe S.L., Madrid (28%)
- Mission Embedded GmbH, Vienna (20%)
- Nemergent Solutions S.L., Bilbao (15%)

*) As at 1 January 2021, Frequentis Slovakia s.r.o. was merged into Frequentis Solutions s.r.o., and Frequentis Solutions s.r.o. was renamed Frequentis Solutions & Services s.r.o.

All information on the consolidated group relates to the circumstances as at 31 December 2021.

Changes to the consolidated group

Acquisition of the air traffic management (ATM) product lines from L3Harris Technologies, Inc.

On 23 February 2021, Frequentis signed an agreement to acquire civil and military ATM voice communications product lines and software and cloud solutions for air traffic optimisation (traffic synchronisation) of the US group L3Harris Technologies, Inc. (subsequently referred to as L3Harris). This transaction, which was subject to various competition clearance and regulatory approvals, comprised

- the acquisition of 100% of the shares in Harris Orthogon GmbH, Bremen, Germany (closing: 30 April 2021, now Frequentis Orthogon GmbH);
- the assumption of a customer contract between L3Harris and the British air navigation service provider NATS (contract transferred on 28 May 2021);
- the acquisition of the Harris ATC Solutions business unit based in Gatineau, Canada, which Harris Canada Systems, Inc. first transferred to a Canadian company established specifically for the purpose of this transaction; Frequentis then acquired all shares in this new company (closing: 28 May 2021, now Frequentis Canada ATM Ltd.); and
- the acquisition of 100% of the shares in Harris C4i Pty. Ltd., Melbourne, Australia, by Frequentis Australia Holding Pty Ltd., a new subsidiary established by Frequentis Australasia (closing: 30 July 2021, now C4i Pty Ltd.).

These transactions expand Frequentis' ATM product portfolio. Although the transactions were covered by a single agreement, the individual transactions have been valued separately because, in principle, the acquisitions of the individual companies were not dependent on each other and took place at different times. Moreover, the sellers of the individual companies in the L3Harris group were different.

Harris Orthogon GmbH

The Harris Orthogon transaction was successfully closed on 30 April 2021 with the acquisition of all shares in Harris Orthogon GmbH. This company is based in Bremen, Germany, and has been operating successfully in the air traffic control market for around 30 years. It has already been renamed Frequentis Orthogon GmbH (subsequently referred to as Orthogon). The company is an innovative provider of air traffic synchronisation solutions for en-route, approach, and airport ATC centres. Its air traffic optimisation solutions are designed, among other things, to reduce air traffic emissions.

Orthogon's solutions expand Frequentis' range of integrated air traffic management solutions. Frequentis can therefore offer an even more extensive range of products with higher performance and greater digitalisation.

The contractually agreed purchase price comprised the following components:

	Fair value as at 30 April 2021 USD thousand	Fair value as at 30 April 2021 EUR thousand
Basic purchase price	**8,000**	**6,625**
Orthogon net cash	2,056	1,703
Target Orthogon net cash	0	0
	2,056	**1,703**
Orthogon working capital	2,891	2,395
Target Orthogon working capital	3,591	2,975
	-700	**-580**
Payments under a profit-and-loss transfer agreement	463	383
Total consideration	**9,818**	**8,131**

The basic purchase price according to the purchase agreement was USD 8,000 thousand.

The target net cash agreed in the purchase agreement was USD 0. The purchase price was increased by the company's cash and cash equivalents of USD 2,056 thousand.

The target Orthogon working capital agreed in the purchase agreement was USD 3,591 thousand.

Orthogon had a profit-and-loss transfer agreement with a company in the L3Harris group. For the period from 1 January 2021 until 30 April 2021, L3Harris therefore covered the losses incurred by Orthogon as reported in accordance with the German Commercial Code (HGB). Moreover, this amount increased the purchase price to be paid by Frequentis.

In accordance with the purchase agreement, USD 5,609 thousand was paid upon closing on 30 April 2021; USD 4,000 thousand was paid upon closing of the acquisition of C4i Pty. Ltd., as at 30 July 2021, and USD 209 thousand was paid following final agreement on the closing balance as at 29 December 2021.

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

	Fair value as at 30 April 2021 EUR thousand
Intangible assets	4,858
Property, plant, and equipment	1,406
Trade accounts receivable	1,687
Contract assets	2,667
Contract costs	133
Receivable from profit-and-loss transfer agreement	383
Other assets	68
Cash and cash equivalents	1,702
Deferred tax liabilities	-2,015
Non-current lease liabilities	-89
Provisions for pensions	-2,183
Contract liabilities from contracts with customers	-1,754
Trade accounts payable	-267
Current lease liabilities	-69
Other liabilities	-543
Other current provisions	-116
Net assets	**5,868**
Attributable to the Frequentis Group	5,868
Goodwill	2,263
Consideration paid	**8,131**

The goodwill from this acquisition can be allocated, in particular, to the expected synergies from the use of the Group's worldwide distribution network and the new technologies.

Transaction costs incurred for the business combination were recognised in current expenses for the period. 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, Orthogon has contributed revenues of EUR 6,411 thousand and EBIT of EUR 692 thousand to the consolidated figures of the Frequentis Group. Had the acquisition been completed at the beginning of the 2021 financial year, Orthogon would have contributed revenues of EUR 8,487 thousand and EBIT of EUR -502 thousand to the consolidated figures of the Frequentis Group.

Harris ATC Solutions business unit of Harris Canada Systems Inc.

The acquisition of the Harris ATC Solutions business unit from L3Harris was closed on 28 May 2021. Until then, this business was part of Harris Canada Systems Inc. In the context of the transaction, Harris Canada Systems Inc. transferred the business unit to a company established specifically for this purpose. As at the closing date, Frequentis acquired all shares in this new company, which has already been renamed Frequentis Canada ATM Ltd.

The company has about 60 employees, who work in development and business development.

The acquisition of the ATC business unit was primarily due to fulfilment of the NATS contract.

The contractually agreed purchase price comprised the following components:

	Fair value as at 28 May 2021 USD thousand	Fair value as at 28 May 2021 EUR thousand
Basic purchase price	**100**	**82**
Harris ATC Solutions net cash	1,262	1,036
Target Harris ATC Solutions net cash	0	0
	1,262	**1,036**
Harris ATC Solutions working capital	2,391	1,958
Target Harris ATC Solutions working capital	3,653	2,994
	-1,262	**-1,036**
Total consideration	**100**	**82**

The basic purchase price of USD 100 thousand was not contingent upon any further conditions and was paid in 2021.

The target Harris ATC Solutions net cash agreed in the purchase agreement was USD 0 thousand. The purchase price was increased by the company's cash and cash equivalents of USD 1,262 thousand.

When the closing balance was prepared, differences of opinion arose, in particular with regard to the measurement of inventories. For this reason, ultimately the purchase price for ATC Solutions was not increased. The presented working capital of ATC Solutions includes a retrospective calculation based on the purchase price paid.

In addition, in the purchase agreement it was agreed that Frequentis Canada ATM Ltd. can use the office premises free of charge until the end of May 2022.

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

	Fair value as at 28 May 2021 EUR thousand
Property, plant, and equipment	133
Right of use of office premises	319
Inventories	773
Trade accounts receivable	899
Contract assets	40
Other assets	9
Cash and cash equivalents	1,036
Deferred tax liabilities	-96
Contract liabilities from contracts with customers	-459
Trade accounts payable	-55
Other liabilities	-571
Net assets	**2,028**
Attributable to the Frequentis Group	2,028
Profit from business combination	-1,946
Consideration paid	**82**

The fair value of the net assets acquired exceeded the value of the consideration transferred because the company is expected to incur operating losses in 2021 and 2022. The profit from the business combination was recognised immediately in profit/loss.

Transaction costs incurred for the business combination were recognised in current expenses for the period. 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 Canada ATM has contributed revenues of EUR 2,349 thousand and EBIT of EUR -1,413 thousand to the consolidated figures of the Frequentis Group. The revenues and EBIT that would have contributed to the consolidated figures of the Frequentis Group if the acquisition had been completed at the beginning of the 2021 financial year could not be determined because this business was only transferred to a new company on the closing date and did not constitute a separate legal entity within the L3Harris Group prior to this date.

Assumption of the NATS contract

On 29 January 2016, Harris signed a contract with the British air navigation service provider NATS to supply a comprehensive solution for a voice communication system and a maintenance contract.

The solution to be provided is for several hundred controller workstations at various locations and comprises hardware and software, including customisation.

In a deed of novation and a contract amendment effective at novation of the contract dated 23 February 2021, NATS (En Route) plc, L3Harris Technologies, Inc., and Frequentis AG agreed that Frequentis would take over the contract. The contract was transferred with the closing of the ATC Solutions business in Canada on 28 May 2021.

No purchase price was agreed for the NATS contract. Frequentis AG's main reason for assuming this contract was to regain NATS as a customer in order to strengthen its own market position. Due to the risks associated with the assumption of the contract and execution of the project, no fair value was recognised for this asset.

Harris C4i Pty. Ltd.

Harris C4i, which is based in Melbourne, Australia, develops, manufactures, and integrates custom-tailored, mission-critical communication solutions for the defence sector around the world and will strengthen Frequentis' range of solutions for encrypted and unencrypted, cyber-secure defence communications in the Australian and US markets.

Combining the Frequentis and C4i mission-critical communication platforms enables the Group to offer market-leading technology and solutions based on extensive security, compliance, and export trade processes. Frequentis is the market leader in communication systems for military air traffic control and this acquisition secures its dominant global position in the defence command & control market.

The contractually agreed purchase price comprised the following components:

	Fair value as at 30 July 2021 USD thousand	Fair value as at 30 July 2021 EUR thousand
Basic purchase price	**12,000**	**10,005**
C4i net cash	1,357	1,141
Target C4i net cash	0	0
	1,357	**1,141**
C4i working capital	5,514	4,638
Target C4i working capital	4,216	3,546
	1,298	**1,092**
Payments due to Group taxation	-348	-293
Total consideration	**14,307**	**11,945**

The basic purchase price of USD 12,000 thousand was not contingent upon any further conditions and the first instalment of the total consideration of USD 13,016 thousand was paid on 30 July 2021.

The target C4i net cash agreed in the purchase agreement was USD 0. The purchase price was increased by the company's cash and cash equivalents of USD 1,357 thousand.

The target C4i working capital agreed in the purchase agreement was USD 4,216 thousand.

As a result of Group taxation, there was still an outstanding tax liability between Harris C4i and L3Harris. This liability of USD 348 thousand reduced the purchase price.

When the closing balance was prepared, differences of opinion arose, in particular with regard to the valuation of inventories and projects. For this reason, Frequentis ultimately made a final payment of the remaining purchase price of USD 1,291 thousand for Harris C4i on 29 December 2021. The presented working capital of C4i includes a retrospective calculation based on the purchase price paid.

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

	Fair value as at 30 July 2021 EUR thousand
Intangible assets	6,052
Property, plant, and equipment	538
Inventories	772
Trade accounts receivable	1,392
Contract assets	5,791
Other assets	747
Time deposits	193
Cash and cash equivalents	1,141
Deferred tax liabilities	-1,034
Non-current provisions	-54
Contract liabilities from contracts with customers	-1,713
Trade accounts payable	-231
Current lease liabilities	-389
Other liabilities	-1,021
Other current provisions	-234
Net assets	**11,950**
Attributable to the Frequentis Group	11,950
Profit from business combination	-5
Consideration paid	**11,945**

The fair value of the net assets acquired exceeded the consideration paid by EUR 5 thousand. The profit from the business combination was recognised immediately in profit/loss.

Transaction costs incurred for the business combination were recognised in current expenses for the period. 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, C4i has contributed revenues of EUR 10,091 thousand and EBIT of EUR 1,528 thousand to the consolidated figures of the Frequentis Group. Had the acquisition been completed at the beginning of the 2021 financial year, C4i would have contributed revenues of EUR 22,338 thousand and EBIT of EUR 1,950 thousand to the consolidated figures of the Frequentis Group.

Other changes to the consolidated group

As at 20 May 2021, TEAM Communication Technology Management GmbH was renamed team Technology Management GmbH.

Frequentis Australia Holding Pty Ltd (registered office: Hendra, Australia) was established in May 2021. Frequentis Australasia Pty Ltd holds all shares in this company.

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 personnel-related provisions, 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 the policies 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 average 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. 2021	Closing rate 31 Dec. 2020	Average rate 31 Dec. 2021	Average rate 31 Dec. 2020
AED	Emirati dirham	4.16	4.51	4.34	4.21
AUD	Australian dollar	1.56	1.59	1.58	1.66
BRL	Brazilian real	6.31	6.37	6.38	6.00
CAD	Canadian dollar	1.44	1.56	1.48	1.54
CNY	Chinese renminbi yuan	7.19	8.02	7.61	7.90
CZK	Czech koruna	24.86	26.24	25.65	26.50
GBP	British pound	0.84	0.90	0.86	0.89
NOK	Norwegian krone	9.99	10.47	10.16	10.78
SGD	Singapore dollar	1.53	1.62	1.59	1.58
RON	Romanian leu	4.95	4.87	4.93	4.84
USD	US dollar	1.13	1.23	1.18	1.15

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 2021 and were effective at that date:

- COVID-19-Related Rent Concessions (IFRS 16)
- Interest Rate Benchmark Reform - Phase 2 (amendments to IFRS 9, IAS 39, IFRS 7, and IFRS 16)

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. The COVID-19-related amendments to IFRS 16 (rent concessions) were not utilised as there were no rent concessions.

In addition, some of the following new and amended standards had been endorsed by the EU, but were not mandatory for the 2021 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
IAS 16	Property, Plant and Equipment – Proceeds before Intended Use	28 June 2021	2022	None
IAS 37	Onerous Contracts – Cost of Fulfilling a Contract	28 June 2021	2022	None
IFRS 3	Reference to the Conceptual Framework	28 June 2021	2022	None
IFRS 17	Insurance Contracts	19 November 2021	2023	None
IAS 1	Classification of Liabilities as Current or Non-Current	Open	2023	None
IAS 1	Disclosure of Accounting Policies	2 March 2022	2023	None
IAS 8	Accounting Policies; Changes in Accounting Estimates and Errors	2 March 2022	2023	None
IAS 12	Deferred Tax related to Assets and Liabilities arising from a Single Transaction	Open	2023	None
	Annual Improvements to IFRS Standards (2018 – 2020 Cycle)	28 June 2021	2022	None

Correction of errors

In the reporting period, an error in connection with the presentation of an option held by the non-controlling interest in ELARA Leitstellentechnik GmbH to transfer its interest in this business to Frequentis was corrected. If this option is exercised, Frequentis has an irrevocable obligation to acquire the interest in this business. The put option can be exercised at the earliest on 14 November 2022.

The liability relating to this option was not previously recognised in the statement of financial position. Under IAS 32, the put option is a debt instrument and has to be recognised as a financial liability at fair value. In subsequent periods, adjustments to the fair value of the liability have to be recognised directly in equity in accordance with IFRS 10.

The relevant equity amount is the enterprise value less net financial debt of ELARA Leitstellentechnik GmbH. The enterprise value is determined using a multiples-based valuation. This is based on the average revenues and EBIT derived from the annual financial statements for the last two financial years immediately preceding the exercise of the option.

The error was corrected by restating the relevant items in the financial statements for the prior years.

The following table shows the impact on the consolidated financial statements:

	1 Jan. 2020, as reported EUR thousand	Adjustments EUR thousand	1 Jan. 2020, restated EUR thousand
Retained earnings	81,691	-538	81,153
Non-controlling interests	1,568	-168	1,400
Other non-current financial liabilities	663	706	1,369

	31 Dec. 2020, as reported EUR thousand	Adjustments EUR thousand	31 Dec. 2020, restated EUR thousand
Retained earnings	75,863	-1,187	74,676
Non-controlling interests	3,751	-369	3,382
Other non-current financial liabilities	1,722	1,556	3,278

Impact of the COVID-19 pandemic

The outbreak of the COVID-19 pandemic at the beginning of the 2020 financial year triggered a global economic crisis. Frequentis could not completely avoid the general economic developments. However, it supplies safety-critical infrastructure, which has to be upheld and maintained even in periods of crisis. The impact of the COVID-19 pandemic in the reporting period was as follows:

- As in 2020, travel restrictions prevented many business trips. Although travel expenses were higher than in 2020, they were nevertheless lower than before the pandemic.
- In the reporting period, there were no defaults on receivables due to the COVID-19 pandemic because most customers are in the public sector. As in 2020, a scale factor of 1.5 was taken into account when calculating loss allowances pursuant to IFRS 9 (see Note 23. Trade accounts receivable) because a higher level of insolvencies is still expected in subsequent years.
- Due to the COVID-19 pandemic, the Frequentis Group assessed whether there is an indication that an asset is impaired. Indications of an impairment in connection with the COVID-19 pandemic were identified at one company and recognised accordingly (see Note 17. Intangible assets).

- In certain cases, postponement of project milestones was negotiated at the request of customers as a result of the COVID-19 pandemic. This resulted in a shift in revenues and rescheduling of payment milestones to a later date.

In view of the ongoing mutations of the coronavirus, the duration of the coronavirus crisis cannot be estimated reliably at present. It cannot be precluded that further lockdowns may be necessary in individual countries in 2022 due to new mutations of the virus, so there is a certain degree of uncertainty in respect of the future performance of the Frequentis Group. Since the company gained experience of this in 2020 and 2021 and has sufficient resources to continue its business activities, there is no uncertainty that it will remain a going concern. The consolidated financial statements have therefore been prepared on a going concern basis.

In the reporting period, the Frequentis Group received various types of government grants totalling EUR 428 thousand (2020: EUR 815 thousand). Most of this amount (EUR 247 thousand) relates to the utilisation of an investment grant in Austria. Frequentis AG's share of this amount is EUR 186 thousand (2020: EUR 13 thousand).

The outstanding amount of the loan granted in 2020 to a subsidiary in the UK in the amount of EUR 56 thousand with a government guarantee and 0% interest in the first year and no repayment for the first 18 months was EUR 54 thousand as of December 31, 2021.

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 appropriate material 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 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 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 determined, 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.

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 necessary to assess 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 is 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

Since the Frequentis Group has only concluded insignificant contracts as a lessor, only the regulations applicable for lessees are outlined below.

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.

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 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 remeasurement of the lease liability, the carrying amount of the right-of-use asset is adjusted by the same amount or the adjustment is recognised in profit or loss if the carrying amount of the right-of-use asset has been 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 used. 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 leases liabilities are recognised in the cash flow from financing activities, while the interest payments are recognised in the cash flow from operating activities

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 determined separately based on the type of instrument: financial derivatives, 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, currency 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 2021 or 2020.

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. In the 2021 and 2020 financial years, the Group did not hold any financial assets designated at FVTPL.

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, is a derivative, or if the derivative is designated as a hedging instrument at the date of initial recognition.

Financial 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, currency translation differences, 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 the fair value are recognised in profit or loss, unless the derivatives are designated in a hedging relationship classified as a cash flow hedge.

In connection with hedging of future cash flows ("cash flow hedges") relating to a recognised receivable or liability or a highly probable future transaction, the effective portion of the change in fair value is recognised in other comprehensive income and any ineffectiveness is recognised in profit or loss. The amounts recognised in other comprehensive income are reclassified to profit or loss (revenues, other operating income or other operating expenses) in the period in which the hedged item affects profit or loss.

At the initial designation of a hedging relationship, the Group documents the risk management objectives and strategies of the hedge. Further, it documents the economic relationship between the hedged item and the hedging instrument, and whether it expects changes in cash flows from the hedged item and the hedging instrument to offset each other. Hedging instruments were only designated as cash flow hedges for projects where execution commenced prior to 1 January 2019.

A prospective effectiveness test is performed when the derivative is concluded to make a quantitative assessment of the hedging relationship. If the criteria for hedge accounting are met, the financial derivative is designated as a hedging instrument. The effectiveness of the hedge is tested annually using a retrospective effectiveness test based on a hypothetical derivative.

Under IFRS 9, a company may separate the forward and spot elements of a forward transaction and designate only the changes in the fair value of the spot element as hedging instruments. The Frequentis Group applies this option. Accordingly, it has separated the forward element and credit risk relating to the derivatives and recognised them in profit or loss. The change in the fair value of the designated element (spot component) is recognised in other comprehensive income.

In the absence of such a documented allocation of derivative financial instruments to highly probable future cash flows, which economically hedge a foreign currency risk, changes in its fair value were recognised in profit or loss.

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

Provided that an asset is not a purchased or originated credit-impaired asset, 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 net realisable value. 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 from customer contracts 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 report 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 report. 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 severance 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 share 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, the criteria for recognition as an asset were not met in either 2021 or 2020.

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 or substantially 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 33% in the reporting period (2020: between 7% and 36%).

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 right 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 exercise of discretion

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) The Frequentis Group holds less than 20% of the shares and voting rights of two associated companies, but classifies its influence as significant as it is represented on the management of these companies (see Note 19. Investments accounted for at equity [associated companies]).

b) 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 18 for information on the assumptions and sensitivity analyses used in the goodwill impairment test.

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 are forecast on the basis of 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 31. 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, in addition to the basic purchase price, an earn-out payment was agreed. This is dependent on the achievement of certain earnings targets, the level of working capital on 31 December 2024, and the net cash/debt position as at 31 December 2024 (all parameters based on German accounting standards) and which are accounted for as additions to or deductions from the agreed target value. To measure the earn-out liability as at 31 December 2021, assumptions were made on the development of these items. For further information, see Note 33. Other liabilities. If the actual development differs significantly from the assumptions made, this may impact profit or loss because the liability is subsequently measured at fair value through profit or loss.

h) The liability for the put option relating to non-controlling interests corresponds to the enterprise value less net financial debt of ELARA Leitstellentechnik GmbH. The enterprise value is determined using a multiples-based valuation method and is based on the average revenues and EBIT of the last two annual financial statements immediately preceding exercise of the option. To measure the liability, assumptions were made about the development of these items. For further information, see Note 33. Other liabilities. Significant changes in the underlying assumptions do not impact profit or loss because the changes are recognised in equity.

i) Impairment loss on the deposits at Commerzialbank Mattersburg im Burgenland AG: As at 31 December 2020 and 31 December 2021, all claims against Commerzialbank Mattersburg were 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 currently not at a stage that justifies 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.

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, and 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 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 financial statements for 2021.

Notes to the consolidated income statement

3. Segment report

Operating segments

- Air Traffic Management
- Public Safety & Transport

The main customer groups in the market served by the Air Traffic Management (ATM) segment are civil and military air traffic control and homeland security organisations. The Frequentis Group supports its customers in their central role of air traffic management and efficient and safe control and management of aviation. Product solutions for control centres in the ATM segment range from voice communication, networks, (remote) digital towers, ATC towers, surveillance, AIM (aeronautical information management), and AMHS (aeronautical message handling systems) to ATM/UTM (unmanned traffic management) integration. For the defence sector, the portfolio is supplemented by secure communications and situational awareness applications. The acquisitions made in 2021, which have been allocated to the ATM segment, resulted in revenues of EUR 18,851 thousand and EBIT of EUR 807 thousand.

The market served by the Public Safety & Transport (PST) segment comprises public safety (police, fire, and emergency rescue services), public transport (railways), and maritime (coast guard, port operators, and organisations that monitor shipping on inland waterways). The Frequentis Group's PST segment delivers emergency management solutions for police, ambulance, and fire service organisations, search and rescue, coastal surveillance, operations communications, and incident and crisis management.

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 reconciliation/consolidation mainly comprise transactions that cannot be allocated clearly to one segment and were undertaken for both segments.

	Air Traffic Management 2021 EUR thousand	Public Safety & Transport 2021 EUR thousand	Reconciliation/ consolidation 2021 EUR thousand	Total 2021 EUR thousand
Revenues	219,756	113,639	131	333,526
Change in inventories of finished goods and work in progress	-316	67	48	-202
Own work capitalised	38	0	53	92
Other operating income	7,211	1,253	987	9,451
Profit from a business combination	1,951	0	0	1,951
Total income (operating performance)	**228,640**	**114,960**	**1,219**	**344,818**
EBIT	**12,464**	**16,635**	**-131**	**28,968**
Impairment loss on goodwill	**-1,730**	**0**	**0**	**-1,730**

	Air Traffic Management 2020 EUR thousand	Public Safety & Transport 2020 EUR thousand	Reconciliation/ consolidation 2020 EUR thousand	Total 2020 EUR thousand
Revenues	203,138	96,265	-29	299,374
Change in inventories of finished goods and work in progress	-1	-271	0	-272
Own work capitalised	142	0	74	216
Other operating income	6,040	1,597	922	8,559
Total income (operating performance)	**209,319**	**97,591**	**967**	**307,877**
EBIT	**14,634**	**12,255**	**-81**	**26,808**
Impairment loss on goodwill	**-1,072**	**0**	**0**	**-1,072**

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 2021, nor in 2020, did the Frequentis Group generate more than 10% of its total revenues with any single customer.

In terms of revenue categories, 44% (2020: 41%) of the Group's revenues were generated principally with new products for established customers and existing products sold to new customers, 53% (2020: 56%) comprised IBB (installed base business, i.e. follow-on business for installed systems and solutions), and 3% (2020: 2%) 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:

	2021	2020
Europe	69.6%	73.7%
Americas	13.7%	11.0%
Asia	12.3%	10.2%
Australia/Pacific	3.3%	2.8%
Africa	1.1%	2.3%

Orders on hand as at 31 December 2021 totalled EUR 467,930 thousand (2020: EUR 427,609 thousand). The ATM segment accounted for EUR 297,567 thousand (2020: EUR 247,243 thousand) of this amount and the PST segment for EUR 170,363 thousand (2020: EUR 180,366 thousand).

Regional breakdown of non-current assets

	2021 EUR thousand	2020 EUR thousand
Austria	38,689	38,401
Europe (excluding Austria)	20,502	16,885
Australia/Pacific	6,977	700
Americas	3,873	3,444
Asia	481	589
	70,522	60,019

Non-current assets comprise property, plant and equipment, intangible assets, goodwill, and investments in associated companies.

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 were reduced by EUR 67 thousand (2020: increased by EUR 66 thousand). The business combination resulted in additions of EUR 8,498 thousand to contract assets from contracts with customers (see Note 1. General information – Changes to the consolidated group). The reduction in other 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 14,612 thousand in the reporting period (2020: EUR 11,185 thousand).

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

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:

	2021 EUR thousand	2020 EUR thousand
New products and/or new customer business	145,126	123,716
IBB (installed base business)	177,370	168,208
Other revenues	11,031	7,450
	333,526	**299,374**

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

	2021 EUR thousand	2020 EUR thousand
Europe	226,207	197,900
Americas	49,840	48,935
Asia	31,489	33,947
Australia/Pacific	15,142	13,964
Africa	8,295	2,669
Small orders (not allocated)	2,554	1,959
	333,526	**299,374**

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 467.9 million (31 December 2020: EUR 427.6 million) and corresponds to the orders on hand in the Frequentis Group at the reporting date. It is expected that revenue of approximately EUR 261.8 million will be recognised in 2022 and revenue of EUR 206.1 million will be recognised in 2023 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 2021 comprise EUR 92 thousand (2020: EUR 216 thousand) including, among other things, expenses for self-generated internal demonstration and test systems.

6. Other operating income

	2021 EUR thousand	2020 EUR thousand
Grants and subsidies for research and development costs	3,872	3,341
Income from research incentives	1,862	1,965
Exchange rate differences	1,374	240
Change in the earn-out payment liability	850	0
Changes in the fair value of forward exchange contracts	0	1,625
Subsidies related to the COVID-19 pandemic	0	25
Gain from the sale of intangible assets, property, plant and equipment	3	3
Miscellaneous other operating income	1,490	1,360
	9,451	**8,559**

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 earn-out payment liability in connection with the acquisition of ATRiCS Advanced Traffic Solutions GmbH in 2020 was reduced by EUR 850 thousand in 2021. For further information, see Note 33. Other liabilities.

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

7. Cost of materials and purchased services

	2021 EUR thousand	2020 EUR thousand
Cost of materials	28,905	32,621
Cost of purchased services	46,791	42,391
	75,696	**75,012**

The reduction of EUR 3,716 thousand in the cost of materials is due to a reduction in the material intensity of the projects invoiced. The cost of materials purchased increased by the same proportion as revenues.

8. Personnel expenses

	2021 EUR thousand	2020 EUR thousand
Salaries	145,364	125,563
Expenses for severance payments	2,808	1,823
Expenses for pensions	1,676	1,162
Social security contributions	28,520	26,362
Other voluntary social welfare expenses	3,769	3,022
	182,137	**157,932**

The headcount at the end of the financial year was 2,175 (2020: 1,923). The average number of employees was 2,157 (2020: 1,907).

EUR 11,088 thousand of the increase in personnel expenses relates to the new companies included in the consolidated group. Most of the remainder is due to the increase in provisions for bonuses and accruals for holidays not yet taken, as well as individual and collectively agreed salary rises and the increase in the headcount.

The personnel expenses for the reporting period contain receivables of EUR 116 thousand (2020: EUR 762 thousand) relating to the COVID-19 pandemic.

9. Other operating expenses

	2021 EUR thousand	2020 EUR thousand
Travel expenses	5,377	4,076
Other consulting expenses	4,449	3,429
Legal and consulting expenses	3,605	5,086
External personnel	3,103	3,021
Insurance expenses	2,327	2,121
Maintenance	2,212	1,835
Advertising	2,131	1,538
Changes in the fair value of forward exchange contracts	1,955	0
Exchange rate differences	1,455	1,103
Licenses (terms of up to 1 year)	1,395	903
Transport	1,232	980
Operating expenses (buildings)	1,201	1,157
Energy	1,172	1,088
Telephone and communications expenses	1,102	1,042
Staff recruitment	920	651
Vehicles	916	894
Loss allowances for receivables and contract assets	908	378
Cleaning	863	829
Bank charges and bank guarantee fees	787	633
Other taxes and levies	755	653
Short-term leases and leases for low-value assets	573	552
Translation costs	244	256
Losses from the disposal of intangible assets, property, plant and equipment	16	32
Claims for damages	0	2
Miscellaneous	1,781	757
	40,479	**33,016**

In some expense categories, e.g. travel expenses and advertising, there was an unusual reduction in 2020 due to the COVID-19 pandemic. Although these expenses increased in the reporting period, they were still considerably lower than before the COVID-19 pandemic.

The reduction in legal and consulting expenses is mainly due to the higher costs incurred in 2020 in connection with Commerzialbank Mattersburg.

The loss allowances contain EUR 916 thousand (2020: EUR 382 thousand) for receivables and EUR -8 thousand (2020: EUR-4 thousand) for contract assets. These 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

	2021 EUR thousand	2020 EUR thousand
Depreciation of right-of-use assets	8,231	7,690
Depreciation of property, plant and equipment and amortisation of intangible assets	7,042	5,953
Depreciation and amortisation of low-value assets	535	394
	15,808	**14,037**

Assets with an acquisition or manufacturing cost of up to EUR 800 (country-specific) are defined as low-value assets and are recognised as expenses in the year of acquisition.

11. Financial income

	2021 EUR thousand	2020 EUR thousand
Interest and similar income	79	94
	79	**94**

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

12. Financial expenses

	2021 EUR thousand	2020 EUR thousand
Interest and similar expenses	607	615
	607	**615**

EUR 215 thousand (2020: EUR 242 thousand) of the interest and similar expenses is attributable to IFRS 16. Interest expenses are recognised using the effective interest method.

13. Net change in impairment losses on financial assets

	2021 EUR thousand	2020 EUR thousand
Impairment loss on the equity investment in Altitude Angel Ltd.	-863	0
Impairment losses in connection with Commerzialbank Mattersburg	0	-30,918
Other	6	-5
	- 857	**-30,923**

In the reporting period, an impairment loss of EUR 863 thousand was recognised on the 4.56% equity investment in the start-up Altitude Angel Ltd., Reading, UK, as Frequentis could not demonstrate its fair value.

The impairment loss recognised in the previous year related to the insolvency of Commerzialbank Mattersburg. As a result of the insolvency, an impairment loss of EUR 30,918 thousand was recognised on the deposits due on demand and time deposits of Frequentis AG at Commerzialbank Mattersburg.

14. Income taxes

	2021 EUR thousand	2020 EUR thousand
Current income taxes	6,608	1,628
Taxes relating to other periods	-33	-514
Non-deductible withholding tax	67	76
Change in deferred tax assets/liabilities	516	-2,222
	7,158	**-1,032**

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

	2021 EUR thousand	2020 EUR thousand
Profit/loss before tax	27,925	-4,422
Theoretical tax income/expense based on a tax rate of 25%	6,981	-1,106
Differences in tax rates	317	274
Tax additions	379	168
Tax deductions	-537	-503
Changes in tax rates	-158	29
Impairment loss on goodwill	433	268
Profit from business combinations	-488	0
Tax losses for which no deferred tax assets are recognised	207	275
Realised tax losses for which no deferred tax assets were recognised	-10	0
Taxes relating to other periods	-33	-514
Non-deductible withholding tax	67	76
Actual tax income/expense	**7,158**	**-1,033**
Effective tax rate	**25.6%**	**-23.4%**

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

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

	Assets 2021 EUR thousand	Liabilities 2021 EUR thousand	Assets 2020 EUR thousand	Liabilities 2020 EUR thousand
Property, plant, and equipment	13	-9,750	147	-9,446
Intangible assets	97	-4,108	88	-1,047
Goodwill	55		106	
Financial assets	221		50	
Inventories	55	-477	21	-87
Contract assets from contracts with customers	209	-4,118	416	-4,796
Contract costs		-170		-772
Trade accounts receivable and other assets	88	-1,633	94	-2,183
Capital reserve			27	
Provisions	3,837	-1,807	2,540	-1,192
Trade accounts payable and other liabilities	10,080	-137	9,331	-83
Contract liabilities from contracts with customers	1,881	-3	2,679	-427
Deferred taxes on currency differences, debt consolidation	96	-95	108	-107
Tax loss carryforwards	1,349		3,794	
Total	**17,981**	**-22,298**	**19,401**	**-20,140**
Netting	-16,132	16,132	-18,309	18,309
Deferred taxes	**1,849**	**-6,166**	**1,092**	**-1,831**

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 3,914 thousand (2020: EUR 2,674 thousand).

As at the reporting date, the Frequentis Group had loss carryforwards totalling EUR 6,869 thousand (2020: EUR 16,603 thousand). Deferred taxes were recognised for loss carryforwards of EUR 4,694 thousand (2020: EUR 15,154 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 1,256 thousand. There is no time limit on use of the other loss carryforwards.

The amount of tax-deductible impairments on equity instruments that is spread over seven years under Austrian tax law is EUR 787 thousand (2020: EUR 94 thousand). Deferred tax assets of EUR 197 thousand (2020: EUR 23 thousand) are recognised for this amount.

As at 31 December 2021, no material income tax uncertainties existed.

15. 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 13,269,358 (2020: 13,252,240).

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 31,000 shares. The average weighted number of shares and options was 13,307,220 (2020: 13,273,701).

Notes to the consolidated statement of financial position

16. Property, plant and equipment

in EUR thousand	Land and buildings and buildings on leased land	Technical plant and machinery	Other plant, factory and office equipment	Advances and plants under construction	Total
Carrying amount as at 31 Dec. 2019	**40,880**	**501**	**6,777**	**86**	**48,244**
Foreign currency translation difference	-321	0	-53	0	-374
Reclassification	0	-54	132	-78	0
Additions from business combinations	83	0	66	0	149
Addition	5,691	596	3,443	219	9,949
Disposal	-38	-1	-55	0	-94
Depreciation	-7,319	-138	-3,812	0	-11,269
Carrying amount as at 31 Dec. 2020	**38,976**	**904**	**6,498**	**227**	**46,605**
Cost of acquisition/production	54,953	4,225	27,708	227	87,113
Accumulated depreciation	-15,977	-3,321	-21,210	0	-40,508
Carrying amount as at 31 Dec. 2020	**38,976**	**904**	**6,498**	**227**	**46,605**
Carrying amount as at 31 Dec. 2020	**38,976**	**904**	**6,498**	**227**	**46,605**
Foreign currency translation difference	314	0	41	9	364
Reclassification	113	0	123	-236	0
Additions from business combinations	1,748	68	581	0	2,397
Addition	5,364	32	4,576	383	10,355
Disposal	0	0	-44	0	-44
Depreciation	-7,851	-218	-3,891	0	-11,960
Carrying amount as at 31 Dec. 2021	**38,664**	**786**	**7,884**	**383**	**47,717**
Cost of acquisition/production	65,526	4,405	32,249	383	102,563
Accumulated depreciation	-26,862	-3,619	-24,365	0	-54,846
Carrying amount as at 31 Dec. 2021	**38,664**	**786**	**7,884**	**383**	**47,717**

During 2021, the Frequentis Group concluded agreements for the acquisition of property, plant and equipment totalling EUR 740 thousand (2020: EUR 251 thousand), which will be delivered and invoiced in 2022.

An investment subsidy of EUR 247 thousand was granted in the reporting period (2020: EUR 13 thousand). The cost of acquisition of the related property, plant and equipment was reduced by this amount.

For information on the recognised right-of-use assets resulting from the application of IFRS 16, which are contained in the above table, see Note 37. Leasing.

17. Intangible assets

in EUR thousand	Software and licences	Advances	Total
Carrying amount as at 31 December 2019	**7,311**	**261**	**7,572**
Foreign currency translation difference	0	0	0
Reclassification of advances	273	-273	0
Additions from business combinations	3,208	0	3,208
Addition	991	23	1,014
Disposal	-6	0	-6
Amortisation	-2,768	0	-2,768
Carrying amount as at 31 December 2020	**9,009**	**11**	**9,020**
Cost of acquisition/production	23,176	11	23,187
Accumulated amortisation	-14,167	0	-14,167
Carrying amount as at 31 December 2020	**9,009**	**11**	**9,020**
Carrying amount as at 31 December 2020	**9,009**	**11**	**9,020**
Foreign currency translation difference	200	0	200
Reclassification of advances	5	-5	0
Additions from business combinations	10,909	0	10,909
Addition	1,418	23	1,441
Disposal	-2	-4	-6
Amortisation	-3,847	0	-3,847
Carrying amount as at 31 December 2021	**17,692**	**25**	**17,717**
Cost of acquisition/production	35,406	25	35,431
Accumulated amortisation	-17,714	0	-17,714
Carrying amount as at 31 December 2021	**17,692**	**25**	**17,717**

In the reporting period, the Frequentis Group spent EUR 15.0 million (2020: EUR 12.8 million) on research and development work that was not ordered by customers and was expensed as incurred.

During 2021, the Frequentis Group concluded agreements for the purchase of intangible assets totalling EUR 14 thousand, which will be received and invoiced in 2022 (2020: EUR 221 thousand).

18. Goodwill

in EUR thousand	Goodwill
Carrying amount as at 31 December 2019	**2,228**
Foreign currency translation difference	0
Additions from business combinations	1,730
Addition	0
Disposal	-1,072
Impairment losses	0
Carrying amount as at 31 December 2020	**2,886**
Cost of acquisition/production	3,958
Accumulated impairment losses	-1,072
Carrying amount as at 31 December 2020	**2,886**
Carrying amount as at 31 December 2020	**2,886**
Foreign currency translation difference	14
Additions from business combinations	2,263
Addition	0
Disposal	0
Impairment losses	-1,730
Carrying amount as at 31 December 2021	**3,433**
Cost of acquisition/production	6,235
Accumulated impairment losses	-2,802
Carrying amount as at 31 December 2021	**3,433**

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

	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
ATRiCS Advanced Traffic Solutions GmbH	0	1,730
Frequentis Comsoft GmbH	909	909
Frequentis Orthogon GmbH	2,263	-
Systems Interface Ltd.	208	194
team Technology Management GmbH	53	53
	3,433	**2,886**

Goodwill was tested for impairment when preparing the consolidated financial statements by estimating the recoverable amount of the relevant companies 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 all cash-generating units 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% (2020: 1%) was determined and used to forecast future cash flows.

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

Impairment test 2021	ATRiCS Advanced Traffic Solutions GmbH	Frequentis Comsoft GmbH	Frequentis Orthogon GmbH	Systems Interface Ltd.	team Technology Management GmbH
Interest rate (WACC before taxes)	10.85%	11.70%	10.72%	11.13%	9.16%
Recoverable amount in EUR thousand	3,706	31,107	10,599	340	23,655
Carrying amount of the CGU including goodwill in EUR thousand	7,098	16,075	10,093	-482	1,816

Impairment test 2020	ATRiCS Advanced Traffic Solutions GmbH	Frequentis Comsoft GmbH	Systems Interface Ltd.	team Technology Management GmbH
Interest rate (WACC before taxes)	9.52%	10.75%	9.98%	9.01%
Recoverable amount in EUR thousand	9,029	30,466	812	14,518
Carrying amount of the CGU including goodwill in EUR thousand	8,537	8,554	2,914	236

In the sensitivity analyses for the groups of cash-generating units to which significant goodwill has been allocated, a 10% reduction in future cash flows or an increase of one percentage point in discount rates was assumed.

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

The carrying amount of the CGU Frequentis Orthogon GmbH, including goodwill, would correspond to the recoverable amount if there was a reduction of 4.2% in cash flows or a slight increase of 0.4% in the discount rate. Frequentis Orthogon GmbH was included in Frequentis' consolidated financial statements from the closing of the transaction in April 2021. In this context, a purchase price allocation was performed. As at the reporting date, there had not been any significant changes in the planning assumptions.

In 2020, an impairment loss was recognised for Systems Interface Ltd.

In 2021, the impairment test resulted in the recognition of an impairment loss for ATRiCS Advanced Traffic Solutions GmbH. The difficult order situation, which became apparent in 2020 and was exacerbated by the COVID-19 pandemic in 2021, led to a reduction in the cash flow forecast. The impairment test on ATRiCS Advanced Traffic Solutions GmbH resulted in an impairment loss of EUR 1,730 thousand on goodwill.

At ATRiCS Advanced Traffic Solutions GmbH, a 10% reduction the cash flow would increase the impairment loss by EUR 220 thousand and an increase in the discount rate of 1 percentage point would increase the impairment loss by EUR 256 thousand. An increase of 10% in the cash flow would reduce the impairment loss by EUR 216 thousand and a reduction of 1 percentage point in the discount rate would reduce it by EUR 336 thousand.

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 normal market and country-specific risks. This is converted into WACC before taxes.

19. Investments accounted for at equity (associated companies)

	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
Investments in associated companies	1,656	1,509

Name of associated company	Registered office	Voting rights and shareholding as at 31 Dec. 2020	Voting rights and shareholding as at 31 Dec. 2020
GroupEAD Europe S.L.	Madrid	28%	28%
Mission Embedded GmbH	Vienna	20%	20%
Nemergent Solutions S.L.	Bilbao	15%	15%
AIRNAV Technology Services Inc.	Iloilo	40%	40%
AIRlabs Austria GmbH	Graz	18%	18%

The reporting date for all associated companies is 31 December and they are all accounted for using the equity method. There were neither any unrealised losses nor any significant restrictions on the repayment of loans. Only AIRlabs Austria GmbH is subject to a restriction on the distribution of profits imposed by the shareholder agreement.

The Frequentis Group has a 28% interest in **GroupEAD Europe S.L.**, Madrid. The carrying amount of this investment developed as follows (based on the most recent available financial statements for 2020 and the dividends already received for 2021):

		2021 EUR thousand	2020 EUR thousand
31 Dec. prior year	**Equity interest in GroupEAD Europe S.L.**	**491**	**491**
	Attributable profit in prior year	124	88
	Less dividend paid for the prior year	-124	-88
	Provisional attributable profit in the reporting period	56	56
	Less dividend paid in the reporting period	-56	-56
31 Dec. reporting period	**Equity interest 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 2020):

GroupEAD Europe S.L.	31 Dec. 2020 EUR thousand	31 Dec. 2019 EUR thousand
Non-current assets	264	285
Current assets	2,870	3,043
Non-current liabilities	0	0
Current liabilities	940	1,260
Net assets (100%)	**2,194**	**2,068**
Frequentis Group's share of net assets (28%)	614	579
Dividend paid in the following year	-124	-88
Carrying amount of the stake in the associated company	**491**	**491**
Revenues	7,159	7,546
Profit from continuing operations (100%)	642	516
Other comprehensive income (100%)	0	0
Total comprehensive income (100%)	**642**	**516**
Total comprehensive income (28%)	180	144
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	**180**	**144**

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

		2021 EUR thousand	2020 EUR thousand
31 Dec. prior year	**Equity investment in Mission Embedded GmbH**	**246**	**178**
	Attributable profit/loss in the reporting period	116	69
	Actuarial losses in in accordance with IAS 19	0	-1
31 Dec. reporting period	**Equity investment in Mission Embedded GmbH**	**362**	**246**

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 2021):

Mission Embedded GmbH	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
Non-current assets	307	230
Current assets	4,820	2,167
Non-current liabilities	256	172
Current liabilities	3,061	994
Net assets (100%)	**1,809**	**1,231**
Frequentis Group's share of net assets (20%)	362	246
Carrying amount of the stake in the associated company	**362**	**246**
Revenues	8,354	4,975
Profit from continuing operations (100%)	581	342
Other comprehensive income (100%)	0	-4
Total comprehensive income (100%)	**581**	**338**
Frequentis Group's share of the profit from continuing operations (20%)	116	68
Frequentis Group's share of other comprehensive income (20%)	0	-1
Frequentis Group's share of total comprehensive income (20%)	**116**	**67**

In 2020, the Frequentis Group acquired a 15% interest in **Nemergent Solutions S.L.**, which has its registered office in Bilbao. This investment was made through Frequentis' wholly owned subsidiary BlueCall GmbH.

Nemergent Solutions S.L. operates in mission-critical services (3GPP), for example, MCPTT (mission-critical push-to-talk) via LTE. 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 end devices, i.e. mobile terminals 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 Frequentis Group has classified its influence as significant, despite the 15% shareholding, due to the significant level of management involvement in the associate.

The table shows the development of this investment:

		2021 EUR thousand	2020 EUR thousand
31 Dec. prior year	**Equity investment in Nemergent Solutions S.L.**	**707**	**0**
	Purchase price payment	0	707
	Attributable profit/loss in the reporting period	39	0
	Less dividend paid in the reporting period	-15	0
31 Dec. reporting period	**Equity investment in Nemergent Solutions S.L.**	**731**	**707**

The next table contains summarised financial information on this company as at the last reporting date (31 December 2021):

Nemergent Solutions S.L.	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
Non-current assets	521	253
Current assets	1,606	1,489
Non-current liabilities	450	252
Current liabilities	182	157
Net assets (100%)	**1,495**	**1,333**
Frequentis Group's share of net assets (15%)	224	200
Goodwill	**507**	**507**
Carrying amount of the stake in the associated company	**731**	**707**
Revenues	1,226	723
Profit from continuing operations (100%)	265	143
Other comprehensive income (100%)	0	0
Total comprehensive income (100%)	**265**	**143**
Frequentis Group's share of the profit from continuing operations (15%)	39	0
Frequentis Group's share of other comprehensive income (15%)	0	0
Frequentis Group's share of total comprehensive income (15%)	**39**	**0**

The Frequentis Group holds 40% of the shares in **AIRNAV Technology Services Inc.**, which is registered in the Philippines (Iloilo). The table shows the development of this investment:

		2021 EUR thousand	2020 EUR thousand
31 Dec. prior year	**Equity investment in AIRNAV Technology Services Inc.**	**40**	**37**
	Attributable profit/loss in the reporting period	9	3
31 Dec. reporting period	**Equity investment in AIRNAV Technology Services Inc.**	**49**	**40**

This company was established in 2017 and operates in the ATM segment. Its operations comprise testing, installation, and maintenance services and on-site training for international customer projects (especially in the Asian and Arab markets).

The Frequentis Group holds 18% of the shares and voting rights in **AIRLABS Austria GmbH**, Graz. The Group has classified its influence as significant due to the significant level of management involvement in this associate.

The table shows the development of this investment:

		2021 EUR thousand	2020 EUR thousand
31 Dec. prior year	**Investment in AIRlabs Austria GmbH**	**26**	**27**
	Attributable profit/loss in the reporting period	-2	-1
31 Dec. reporting period	**Investment in AIRlabs Austria GmbH**	**24**	**26**

In summer 2019, the Austrian Federal Ministry of Transport, Innovation and Technology awarded the AIRlabs consortium led by the FH JOANNEUM university of applied sciences in Graz, Austria, the contract to create the innovation laboratory AIRlabs Austria GmbH. This company was established in December 2019 and registered in the commercial register in January 2020. This company builds and operates testing areas and test infrastructure for drones in Austria, including the related research, development, and registration.

Since AIRNAV Technology Services Inc. and AIRlabs Austria GmbH are not material associated companies, the key financial data are summarised in aggregate form in the following table:

	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
Non-current assets	108	48
Current assets	923	1,405
Non-current liabilities	73	18
Current liabilities	705	1,194
Net assets (100%)	**253**	**241**
Frequentis Group's share of net assets	**73**	**65**
Revenues	928	925
Profit/loss for the period	9	-2
Frequentis Group's share of profit/loss for the period	7	1
Frequentis Group's share of other comprehensive income	0	0
Frequentis Group's share of total comprehensive income	**7**	**1**

From the annual profit of all associated companies accounted for at equity, a proportionate share of EUR 342 thousand (2020: EUR 214 thousand) is recognised. There were no unrecognised losses in the reporting period or the prior year.

20. Equity instruments

The equity instrument held in the reporting period was:

	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
Altitude Angel Ltd.	0	863
	0	**863**

In the reporting period, an impairment loss of EUR 863 thousand was recognised on the 4.56% equity investment in the start-up Altitude Angel Ltd., Reading, UK, as Frequentis was unable to demonstrate its fair value.

21. Time deposits, cash and cash equivalents

	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
Long-term time deposits	10,000	10,000
Loss allowance	-10,000	-10,000
	0	**0**

	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
Short-term time deposits	10,199	8,000
Loss allowance	-8,000	-8,000
	2,199	**0**

	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
Cash and cash equivalents	116,616	103,989
Loss allowance	-12,818	-12,724
	103,798	**91,265**

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 Frequentis.

The loss allowances comprise the full amount of the time deposits and 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. An expected credit loss of 0.04% was derived for another bank due to a poorer rating and higher balance as at 31 December 2021 and a loss allowance of EUR 9 thousand was calculated. Since the amount was not significant, it was not recognised in the reporting period and the loss allowance recognised in the previous year (EUR 6 thousand) was reversed.

No loss allowances had to be recognised for the other bank balances due to good ratings and the short-term nature of the deposits (due on demand).

More than 75% of the cash and cash equivalents, including deposits due on demand, of EUR 105,997 thousand as at 31 December 2021 was held at eleven system-relevant major banks in Austria and Germany. Less than 25% was deposited with approximately 20 other banks in Europe, Australia, Asia, and the Americas.

22. Inventories

	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
Raw materials and supplies	9,264	6,567
Work in progress	672	411
Finished goods	2,411	2,700
Merchandise	2,801	1,594
Advance payments made	1,929	1,356
	17,077	**12,628**

The increase in raw materials and supplies was mainly due to an increase in standard stocks of electronic components to service long-term customer contracts.

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, the management of a safety stock for maintenance obligations, and inventories for a major contract with a customer, where delivery and, in this case, invoicing at a point in time will occur in 2022. Merchandise comprises tangible assets, mainly components of future customer projects.

In the reporting period, there was a reclassification from finished goods and merchandise at a subsidiary. This resulted in an adjustment of EUR 619 thousand in the prior-year amounts of finished goods and merchandise.

The impairment loss on inventories was EUR 299 thousand in 2021 (2020: EUR 509 thousand). Reversals of EUR 55 thousand were recognised in 2021 (2020: EUR 54 thousand).

23. Trade accounts receivable

	2021 EUR thousand	2020 EUR thousand
Trade accounts receivable, gross	70,970	60,039
Individual loss allowances	-1,144	-443
Loss allowance pursuant to IFRS 9	-404	-295
Receivables from affiliated and associated companies	13	17
Total trade accounts receivable, net	**69,435**	**59,318**

The trade accounts receivable as at 31 December 2021 include EUR 7,194 thousand relating to the companies acquired.

Trade accounts receivable contain non-current items totalling EUR 789 thousand (31 December 2020: EUR 915 thousand) that have to be recognised as current items in accordance with 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 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, credit insurance, 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 carrying amounts of financial assets represent the maximum credit risk.

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:

	2021 EUR thousand	2020 EUR thousand
As at 31 December of the previous year	**738**	**661**
Foreign currency translation	23	2
Net impairment pursuant to IFRS 9	109	72
Additions	806	310
Utilisation	0	-94
Reversal	-128	-213
As at 31 December of the financial year	**1,548**	**738**

The structure of overdue trade accounts receivable as at 31 December was as follows:

	Weighted average loss rate 2021	Weighted average loss rate 2020	2021 EUR thousand	2020 EUR thousand
Trade accounts receivable, net			69,422	59,301
of which: neither overdue nor impaired	0.04%	0.06%	55,099	48,860
of which, overdue but not impaired				
Up to 30 days	0.15%	0.26%	9,491	6,346
30-60 days	0.64%	0.56%	1,603	870
60-90 days	1.60%	1.61%	298	913
90-180 days	1.79%	2.63%	1,729	1,065
180-210 days	8.64%	11.12%	7	248
> 210 days	20.69%	16.35%	1,195	1,000

Due to their insignificance, receivables from affiliated and associated companies in the amount of EUR 13 thousand (2020: EUR 17 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, the COVID-19 pandemic did not result in any defaults on receivables in the reporting period. Although longer payment terms have been agreed with some customers, due to its customer structure, the Frequentis Group does not expect an increase in defaults. However, since an increase in insolvencies is expected in 2022 and subsequent years, the Frequentis Group 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 COVID-19 pandemic. If a customer is granted a temporary extension of a payment deadline (which may be up to 60 days) due to the COVID-19 pandemic, the payment is still classified as overdue on the basis of the original due date.

24. Contract assets from contracts with customers

	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
Contract assets from contracts with customers	70,643	53,591
Advances from customers	-32,290	-15,171
	38,353	**38,420**

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.

EUR 21,972 thousand of the increase in contract assets from contracts with customers and EUR 14,075 thousand of the increase in advances received from customers were attributable to the newly acquired companies.

The contract assets of EUR 38,420 thousand recognised as at 1 January (2020: EUR 38,354 thousand) include EUR 30,731 thousand (2020: EUR 26,784 thousand) that were invoiced in the reporting period.

Based on expected project progress and contractual clauses, EUR 38,353 thousand (2020: EUR 38,420 thousand) of the total contract assets of EUR 36,492 thousand recognised as at 31 December 2021 (2020: EUR 33,004 thousand) are scheduled for invoicing in the following year. Contract assets with a carrying amount of EUR 1,861 thousand (2020: EUR 5,416 thousand) are not expected to be invoiced until after 2021. Since realisation of the contract assets is expected within the operating cycle, all contract assets are classified as current.

It is assumed that there are no relevant default risks for contract assets from contracts with customers. The impairment of contract assets recognised in the reporting period amounted to EUR 15 thousand (2020: EUR 23 thousand). The creditworthiness of customers is carefully reviewed, particularly in the case of orders for which the Group makes advance payments. 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 5,986 thousand (2020: EUR 5,239 thousand), while a 10% increase in contract costs not yet incurred would reduce contract assets by EUR 5,521 thousand (2020: EUR 4,770 thousand).

25. 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 capitalised contract costs is as follows:

	2021 EUR thousand	2020 EUR thousand
As at 1 January	**3,028**	**2,549**
Changes in reporting entities	133	0
Contract costs capitalised in the reporting period	2,446	2,770
Amortisation in the reporting period	-1,896	-2,291
Impairment losses	0	0
As at 31 December	**3,711**	**3,028**

The amortisation expense for contract costs in the next 12 months is expected to amount to EUR 2,501 thousand (2020: EUR 1,831 thousand). Since the contract costs are expected to be incurred within the 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.

26. Other current assets

	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
Receivables from grants and subsidies	435	1,297
Positive fair value of cash flow hedges and MTM valuation	92	1,305
Other financial assets	145	148
Other current financial assets	**672**	**2,750**
Prepaid expenses and deferred charges	4,462	3,666
Receivables from fiscal authorities (excluding income taxes)	1,281	943
Receivables from research grants and incentives	1,167	2,788
Receivables from investment grants	247	12
Other assets	232	115
Other current non-financial assets	**7,389**	**7,524**

27. Share capital and retained earnings

At the Annual General Meeting on 8 April 2019, 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 million up to 7 April 2024 by issuing up to 6 million new no-par-value bearer shares in one or more tranches in return for cash or payment in kind. 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).

IPO in 2019

Following the initial public offering (IPO), 13,199,999 bearer shares were admitted to trading on the Vienna Stock Exchange with the admission notification of 6 May 2019 and on the Frankfurt Stock Exchange (regulated market) with the admission decision of 13 May 2019. In the IPO, a total of 2,873,975 shares were placed on the capital market at a price of EUR 18.00 per share. 1,200,000 of these were newly issued shares, while 1,673,975 were shares previously held by Mr. Johannes Bardach and sold by him. In addition to the bearer shares, there is still one registered share with restricted transferability, which is held by Mr. Johannes Bardach. The total number of issued shares as at 31 December 2019 was 13,200,000.

Capital increase in 2020

The capital increase for cash excluding existing shareholders' subscription rights for the employee participation programme, as resolved by the Executive Board on 2 March 2020 and approved by the Supervisory Board on 27 March 2020, was successfully completed in May 2020. Frequentis AG thus increased its share capital by EUR 80 thousand, from EUR 13,200 thousand to EUR 13,280 thousand by issuing 80,000 new bearer shares in return for cash contributions, excluding the subscription rights of existing shareholders. The total number of issued shares as at 31 December 2020 was 13,280,000.

Treasury shares

At the Extraordinary General Meeting of Frequentis AG on 20 September 2019, 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.

Moreover, 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.

In 2021, Frequentis repurchased a total of 15,500 treasury shares with a total value of EUR 384 thousand. The share buyback programme ended on 6 May 2021.

The following table shows the change in the number of outstanding shares:

	2021	2020
As at 1 January	**13,280,000**	**13,200,000**
Newly issued shares due to the capital increase	0	80,000
Purchase of treasury shares	-15,500	0
As at 31 December	**13,264,500**	**13,280,000**

At year-end 2021, 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 2021 is EUR 13,628 thousand (31 December 2020: net loss of EUR 10,542 thousand) and the accumulated profit is EUR 46,062 thousand (31 December 2020: EUR 34,808 thousand).

The Annual General Meeting of Frequentis AG on 20 May 2021 passed a resolution to pay a dividend of EUR 0.15 per no-par-value share entitled to the dividend for the 2020 financial year. The dividend less statutory capital gains tax of 27.5% was paid in May 2021.

In 2021, the issued shares received a dividend distribution of EUR 1,990 thousand for 2020 (2020 for 2019: EUR 1,992 thousand). That corresponds to a dividend per share of EUR 0.15 in 2021 (2020: EUR 0.15 per share).

28. Reserves

	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
Capital reserves	**21,138**	**21,138**
IAS 19 reserve	-6,284	-6,133
IFRS 2 option reserve	602	232
Cash flow hedge reserve	-346	-123
Retained earnings and other reserves	98,302	80,700
Retained earnings	**92,274**	**74,676**

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

Item	Amount before income taxes 2021 EUR thousand	Income taxes 2021 EUR thousand	Amount after income taxes 2021 EUR thousand	Amount before income taxes 2020 EUR thousand	Income taxes 2020 EUR thousand	Amount after income taxes 2020 EUR thousand
Foreign currency translation	1,117	0	1,117	-784	0	-784
Measurement of cash flow hedges	-298	74	-224	736	-184	552
Remeasurement of post-employment benefits	-169	23	-146	-703	176	-527
Investments accounted for at equity – amounts recognised in other comprehensive income	0	0	0	-1	0	-1
			747			**-760**

29. Share-based payment

Frequentis AG agreed long-term incentive plans with the Chairman of the Executive Board, Mr. Norbert Haslacher, in 2019, 2020, and 2021 (LTIP 2019, LTIP 2020, and LTIP 2021).

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 14,000 shares for the LTIP 2019 and 17,000 shares each for the LTIP 2020 and 2021 (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. Subject to the approval of the Supervisory Board, the settlement date is 30 April 2022 for the LTIP 2019, 30 April 2023 for the LTIP 2020, and 30 April 2024 for the LTIP 2021. 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%.

The LTIP 2019 was approved by the General Meeting on 20 September 2019 and the agreement with the Chairman of the Executive Board was signed on 30 September 2019. The agreed targets are based on the total shareholder return (TSR), organic growth of the operating performance, the EBIT margin, the profit margin, and the development of key accounts, non-refinanced R&D expenses as a percentage of total operating performance, employee satisfaction, and customer satisfaction.

The LTIP 2020 was approved by the General Meeting on 14 May 2020 and the agreement with the Chairman of the Executive Board was signed on 15 May 2020. The agreed targets are based on the total shareholder return (TSR), orders on hand, growth in the regions, and growth via acquisitions.

The LTIP 2021 was approved by the General Meeting on 20 May 2021 and the agreement with the Chairman of the Executive Board was signed on 15 June 2021. The agreed targets are based on the total shareholder return (TSR), the increase in operating performance through key accounts, and growth via new business development.

Apart from the achievement of the targets, the Executive Board member does not have to provide any consideration for the shares awarded.

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 three 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:

	LTIP 2021	LTIP 2020	LTIP 2019
Beginning of the plan	1 Jan. 2021	1 Jan. 2020	1 Jan. 2019
Grant date	15 June 2021	14 May 2020	30 Sep. 2019
End of service period	31 Dec. 2023	31 Dec. 2022	31 Dec. 2021
Vesting date	30 Apr. 2024	30 Apr.2023	30 Apr. 2022
Expected target achievement	126%	130%	103%
Expected no. of shares	17,000	17,000	14,000
Maximum no. of shares	17,000	17,000	14,000
Bonus shares allocated	None	None	None

Of the expected total future expense relating to the LTIP, 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 399 thousand (2020: EUR 184 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 was 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.

30. Non-controlling interests

The non-controlling interests relate to the following subsidiaries:

	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand (after adjustments)
ATRiCS Advanced Traffic Solutions GmbH, Freiburg	1,725	2,191
ELARA Leitstellentechnik GmbH, Aachen*)	0	0
Frequentis DFS Aerosense GmbH, Vienna	95	90
Secure Service Provision GmbH, Leipzig	407	346
Systems Interface Ltd., Bordon	-603	-615
team Technology Management GmbH, Vienna	1,793	1,263
TEAM Technology Management GmbH, Gräfelfing	19	107
	3,436	**3,382**

*) In the reporting period, an error relating to non-controlling interests in ELARA Leitstellentechnik GmbH in the amount of EUR 369 thousand was corrected. Due to the existence of a put option held by the non-controlling interests, this amount was reclassified to financial liabilities and is no longer recognised as a non-controlling interest. There is also a put option held by non-controlling interests at Systems Interface Ltd.. However, this option is not exercisable due to the contractual provisions and is not expected to be exercisable in the future.

team Technology Management GmbH distributed a proportionate dividend of EUR 343 thousand to non-controlling shareholders in the reporting period, Secure Service Provision GmbH distributed a proportionate dividend of EUR 54 thousand, and ELARA Leitstellentechnik distributed a proportionate dividend of EUR 206 thousand.

The following table provides information on the statement of financial position of consolidated subsidiaries with material 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 2021	Non-current assets*)	Current assets	Non-current liabilities	Current liabilities	Net assets	Carrying amount of non-controlling interests
ATRiCS Advanced Traffic Solutions GmbH	3,017	2,026	936	586	3,521	1,725
ELARA Leitstellentechnik GmbH	468	1,295	242	560	961	0
Frequentis DFS Aerosense GmbH	30	1,463	0	1,177	316	95
Secure Service Provision GmbH	154	2,227	38	311	2,032	407
Systems Interface Ltd.	41	2,611	1,417	2,465	-1,230	-603
team Technology Management GmbH	1,089	5,410	841	1,897	3,761	1,793
TEAM Technology Management GmbH	31	132	5	132	26	19
						3,436

Statement of financial position as at 31 December 2020	Non-current assets*)	Current assets	Non-current liabilities	Current liabilities	Net assets	Carrying amount of non-controlling interests
ATRiCS Advanced Traffic Solutions GmbH	3,347	3,104	1,041	938	4,472	2,191
ELARA Leitstellentechnik GmbH	581	947	331	444	752	0
Frequentis DFS Aerosense GmbH	43	1,145	0	889	299	90
Secure Service Provision GmbH	171	1,699	26	113	1,731	346
Systems Interface Ltd.	45	2,304	1,485	2,119	-1,256	-615
team Technology Management GmbH	235	4,281	259	1,579	2,679	1,263
TEAM Technology Management GmbH	75	102	14	18	145	107
						3,382

*) 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):

2021	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
ATRiCS Advanced Traffic Solutions GmbH	1,885	-951	0	-951	-466	0	-466
ELARA Leitstellentechnik GmbH	3,308	631	0	631	309	0	309
Frequentis DFS Aerosense GmbH	1,192	17	0	17	5	0	5
Secure Service Provision GmbH	3,234	571	0	571	114	0	114
Systems Interface Ltd.	3,680	111	0	111	54	-41	13
team Technology Management GmbH	10,427	1,773	9	1,782	869	4	873
TEAM Technology Management GmbH	278	-119	0	-119	-88	0	-88
Total					**797**	**-37**	**760**

2020	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
ATRiCS Advanced Traffic Solutions GmbH	4,518	720	0	720	368	0	368
ELARA Leitstellentechnik GmbH	2,788	410	0	410	201	0	201
Frequentis DFS Aerosense GmbH	1,533	-16	0	-16	-5	0	-5
Secure Service Provision GmbH	2,971	540	0	540	108	0	108
Systems Interface Ltd.	3,116	-1,116	0	-1,116	-547	20	-527
team Technology Management GmbH	8,542	1,149	-6	1,143	563	-3	560
TEAM Technology Management GmbH	53	-55	0	-55	-41	0	-41
Total					**647**	**17**	**664**

31. Non-current provisions

	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
Provisions for severance payments	16,110	15,395
Provisions for pensions	6,046	3,260
Less pension insurance scheme	-3,427	-2,696
	2,619	**564**
Provisions for anniversary bonuses	389	369
Other provisions	874	884
Total non-current provisions	**19,992**	**17,212**

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 2022 and 2047.

Obligations for severance payments were measured using the following parameters:

	2021	2020
Interest rate	1.0%	1.0%
Wage and salary trend	3.3%	3.0%
Average term of the defined benefit obligation	11.2 years	11.6 years

The following table provides the reconciliation of the severance payment obligations from January 1 to December 31:

	2021 EUR thousand	2020 EUR thousand
Present value of severance payment obligations (DBO) as at 1 January = provisions as at 1 January	**15,395**	**14,475**
Foreign currency translation	2	0
Current service cost (CSC)	704	691
Interest cost (IC)	152	186
Actual payments made	-425	-521
Recognised actuarial loss (+)/gain(-)	282	564
Present value of severance payment obligations (DBO) as at 31 December = provisions as at 31 December	**16,110**	**15,395**

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 934 thousand in the reporting period (2020: EUR 902 thousand).

In addition, voluntary severance payments amounting to EUR 1,015 thousand were made in the reporting period (2020: EUR 43 thousand).

The recognised actuarial gains/losses for severance payment obligations are as follows:

	2021 EUR thousand	2020 EUR thousand
Changes in demographic assumptions	0	0
Changes in financial assumptions	500	507
Other changes	-218	57
Total	**282**	**564**

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 remaining assumptions remained unchanged.

Interest rate	Salary increases	DBO 31 Dec. 2021 EUR thousand
1.0%	3.8%	16,990
0.85%	3.3%	16,376
1.0%	3.3%	16,110
1.15%	3.3%	15,851
1.0%	2.8%	15,287

Interest rate	Salary increases	DBO 31 Dec. 2020 EUR thousand
1.0%	3.5%	16,269
0.85%	3.0%	15,658
1.0%	3.0%	15,395
1.15%	3.0%	15,139
1.0%	2.5%	14,579

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.

Pension provisions were increased by EUR 2,183 thousand in the reporting period as a result of the acquisition of Frequentis Orthogon GmbH. These are defined benefit obligations relating to 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 which is pledged to the entitled beneficiaries

The pension benefit obligations were measured using the following parameters:

	2021	2020
Interest rate	1.3%	1.0%
Retirement age	60/65 years	60/65 years
Average term of the defined benefit obligation	14.17 years	14.73 years

Development of pension provisions and plan assets:

	2021 EUR thousand	2020 EUR thousand
Present value of the defined benefit obligation (DBO) as at 1 January	3,260	3,035
Fair value of plan assets	-2,696	-2,573
+ Provisions/- surplus plan assets as at 1 January	**564**	**462**
Present value of the defined benefit obligation (DBO) as at 1 January	3,260	3,035
Additions from business combinations	2,720	0
Service cost	204	109
Interest cost	47	39
Pension payments	-109	-89
Recognised actuarial losses (+)/gains (-)	-76	166
Present value of the pension benefit obligations (DBO) as at 31 December	**6,046**	**3,260**
Fair value of plan assets as at 1 January	2,696	2,573
Additions from business combinations	537	0
Return on plan assets	41	34
Payments made	222	150
Payments received from plan assets	-88	-89
Recognised actuarial losses (-)/gains (+)	19	28
Fair value of plan assets as at 31 December	**3,427**	**2,696**
Provisions as at 31 December		
Present value of the pension benefit obligation (DBO)	6,046	3,260
Fair value of plan assets	-3,427	-2,696
+ Provisions/- surplus plan assets as at 31 December	**2,619**	**564**

In addition, voluntary and statutory defined contribution pension expenses in the amount of EUR 1,453 thousand were recognised in the reporting period (2020: EUR 1,049 thousand).

It is expected that EUR 222 thousand will be paid into the pension insurance scheme in 2022 (2021: EUR 150 thousand).

The actuarial gains and losses were recognised in other comprehensive income and are as follows:

	2021 EUR thousand	2020 EUR thousand
Changes in demographic assumptions	0	0
Changes in financial assumptions	-112	138
Other changes	36	28
Other changes to plan assets	-19	-28
Total	**-95**	**138**

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 parameters, while the remaining assumptions remained unchanged.

Interest rate	DBO 31 Dec. 2021 EUR thousand
1.15%	6,196
1.30%	6,046
1.45%	5,901

Interest rate	DBO 31 Dec. 2020 EUR thousand
0.85%	3,333
1.00%	3,260
1.15%	3,190

Provisions for anniversary bonuses

Provisions for anniversary bonus obligations 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 1.0% (2020: 1.0%) and an average term of 7.1 years (2020: 7.4 years).

	2021 EUR thousand	2020 EUR thousand
Present value of the anniversary bonus obligations (DBO) corresponding to the provisions as at January 1	**369**	**343**
Current service cost (CSC)	42	38
Interest cost (IC)	4	4
Actual payments made	-23	-18
Recognised actuarial loss (+)/gain(-)	-3	2
Present value of the defined benefit anniversary bonus obligations (DBO) as at 31 December = provisions as at 31 December	**389**	**369**

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 remaining assumptions remained unchanged.

Interest rate	DBO 31 Dec. 2021 EUR thousand
0.85%	393
1.00%	389
1.15%	385

Interest rate	DBO 31 Dec. 2020 EUR thousand
0.85%	373
1.00%	369
1.15%	365

Other non-current provisions

The other non-current provisions comprise:

	As at 31 Dec. 2020 EUR thousand	Foreign currency translation EUR thousand	Additions from business combinations EUR thousand	Interest EUR thousand	Utilisation EUR thousand	Reversal EUR thousand	Addition EUR thousand	Reclassified liabilities EUR thousand	As at 31 Dec. 2021 EUR thousand
Provisions for holidays based on period of service	59	1	54	1	-16	0	0	0	99
Provisions for projects	764	0	0	3	-238	0	0	0	529
Other	61	2	0	0	0	0	183	0	246
	884	**3**	**54**	**4**	**-254**	**0**	**183**	**0**	**874**

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 contain provisions for the excess of expected future expenses over revenues. They are not expected to be utilised within the next twelve months.

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

32. Contract liabilities from contracts with customers

The contract liabilities from contracts with customers contain the consideration received where the commitment to transfer goods or services to a customer has not yet been fulfilled. 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 from contracts with customers:

	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
Advances for customer projects	83,106	62,490
Advances offset against contract assets from contracts with customers	-29,075	-12,249
	54,031	**50,241**
Other contract liabilities	6,332	6,546
Other contract liabilities offset against contract assets from contracts with customers	-3,215	-2,922
	3,117	**3,624**
Accrued revenue for maintenance contracts	7,500	8,828
Liabilities for outstanding performance obligations for customer orders after final invoicing (current)	708	142
Liabilities for outstanding performance obligations for customer orders after final invoicing (non-current)	32	13
Total contract liabilities from contracts with customers	**65,388**	**62,848**

The increase in advances for customer projects and netting with contract assets from contracts with customers are mainly attributable to the newly acquired companies.

Other contract liabilities contain contractual claims to advance payments.

EUR 908 thousand (2020: EUR 836 thousand) of the contract liabilities have a term of more than 12 months. Since the contract costs are expected to be incurred within a operating cycle, all contract costs are classified as current.

33. Other liabilities

The other liabilities comprise:

	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
Loans from non-controlling interests	449	480
Earn-out payment liability	402	1,238
Liability for put option, non-controlling interests	0	1,556 *)
Other liabilities	7	4
Total non-current financial liabilities	**858**	**3,278**
Liability for put option non-controlling interests	2,036	0
Negative fair values of cash flow hedges and MTM valuation	1,562	398
Other liabilities	1,398	1,202
Total current financial liabilities	**4,996**	**1,600**
Accrual for holidays not yet taken	3,919	2,282
Liabilities to the Austrian fiscal authorities (excluding income taxes)	2,694	1,614
Accrual for consultancy costs	702	656
Advances received in connection with grants and subsidies	1,065	619
Accrual for overtime	710	466
Other liabilities	1,043	980
Total current non-financial liabilities	**10,133**	**6,617**

*) Comparative amount restated

The other liabilities mainly comprise liabilities to local social security institutions and liabilities to employees.

The earn-out payment liability is one element of the contractually agreed purchase price for ATRiCS Advanced Traffic Solutions GmbH, which was acquired in 2020. It is based on the relevant annual financial statements prepared in accordance with the German Commercial Code and is dependent on achievement of an EBIT target and the net cash/debt ratio as at 31 December 2024 and the deviation from the target working capital as at 31 December 2024.

This liability was remeasured as at the reporting date. In view of the reduction in the actual and planning values, principally as a result of the COVID-19 pandemic, the liability was reduced. The development of the fair value of the earn-out payment liability, which is allocated to level 3, is as follows:

Earn-out	Estimate as at 31 Dec. 2021 EUR thousand	Estimate at date of acquisition EUR thousand
Target value	**3,570**	**3,570**
+/- Earnings-related adjustment (achievement of an EBIT target)	-3,570	-2,758
+/- Net cash/debt as at 31 December 2024	402	458
+/- Difference from target working capital as at 31 December 2024	0	-43
Earn-out claim	**402**	**1,227**

In connection with this earn-out payment liability, in the reporting period, accrued interest of EUR 15 thousand (2020: EUR 11 thousand) and a reduction in the fair value of EUR 850 thousand (2020: EUR 0) were recognised in other operating income.

The liability for a put option, non-controlling interests relates to an option held by non-controlling interests in ELARA Leitstellentechnik GmbH to transfer these interests to Frequentis. If this option is exercised, Frequentis has an irrevocable obligation to acquire these interests. The put option can be exercised at the earliest on 14 November 2022.

The relevant equity amount is the enterprise value less net financial debt of ELARA Leitstellentechnik GmbH. The enterprise value is determined using a multiples-based valuation. This is based on the average revenues and EBIT derived from the annual financial statements for the last two financial years immediately preceding the exercise of the option.

34. Other current provisions

The other current provisions comprise:

	As at 31 Dec. 2020 EUR thousand	Foreign exchange difference EUR thousand	Additions from business combinations EUR thousand	Utilisation EUR thousand	Reversal EUR thousand	Additions EUR thousand	As at 31 Dec. 2021 EUR thousand
Bonuses	7,525	109	350	-7,634	0	10,871	11,221
Provisions for projects	2,919	128	0	-3,047	0	2,977	2,977
Litigation costs	1,686	0	0	-716	-46	820	1,744
Other	1,449	0	0	-927	-293	1,243	1,473
	13,579	**237**	**350**	**-12,324**	**- 339**	**15,911**	**17,415**

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 lawsuits filed in connection with Commerzialbank Mattersburg.

It is expected that the current provisions will result in actual outflows in the 2022 financial year.

Based on the sensitivity analyses performed, a 10% reduction in the remaining costs would reduce the provisions for projects by EUR 1,104 thousand (2020: EUR 1,414 thousand) and 10% increase in the remaining costs would increase the provisions for projects by EUR 1,469 thousand (2020: EUR 1,414 thousand).

Other information

35. 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 reduction in the cash flow from operating activities from EUR 54,752 thousand to EUR 48,753 thousand was mainly attributable to the tax refund of EUR 3,556 thousand in 2020, compared with income tax expense of EUR 3,584 thousand in 2021.

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, payments of principal on lease liabilities, and cash inflows from loans.

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. 2021 EUR thousand	Change 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. 2021 EUR thousand
Non-current liabilities	5,387	0	37	-70	0	0	-1,085	4,269
Non-current lease liabilities	31,811	90	242	0	4,996	0	-7,354	29,785
Current liabilities	1,315	0	14	-1,329	0	0	1,085	1,085
Current lease liabilities	7,292	457	90	-8,228	857	-28	7,354	7,794
Total liabilities for financing activities	**45,805**	**547**	**383**	**-9,627**	**5,853**	**-28**	**0**	**42,933**

	Carrying amount as at 1 Jan. 2020 EUR thousand	Changes in reporting entities EUR thousand	Exchange rate differences EUR thousand	Cash flow EUR thousand	Addition IFRS 16 EUR thousand	Reclassification of maturities EUR thousand	Carrying amount as at 31 Dec. 2020 EUR thousand
Non-current liabilities	6,030	0	-28	434	0	-1,049	5,387
Non-current lease liabilities	32,788	1	-257	0	6,980	-7,701	31,811
Current liabilities	1,609	472	-15	-1,800	0	1,049	1,315
Current lease liabilities	7,289	3	-67	-7,634	0	7,701	7,292
Total liabilities for financing activities	47,716	476	-367	-9,000	6,980	0	45,805

The financial resource fund in the cash flow statement corresponds 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.

36. 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 derivatives as currency hedging instruments. The risk of fluctuations in exchange rates is therefore limited by purchasing forward exchange contracts in the required foreign currency and the necessary amount, based on forecast future requirements. 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 derivatives 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 necessary liquidity. 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 non-derivative financial liabilities. The variable interest payments for financial instruments were derived from the last applicable interest rates prior to 31 December 2021 and 31 December 2020. 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.

2021 in EUR thousand	Carrying amount		Contractual cash flows		
		Less than 1 year	Between 1 and 5 years	More than 5 years	Total
Liabilities to banks and other financial liabilities	4,905	1,145	3,880	0	5,025
Lease liabilities	37,579	8,072	20,296	10,109	38,477
Trade accounts payable	13,422	13,238	184	0	13,422
Other liabilities	4,292	1,878	2,414	0	4,292
Non-derivative liabilities	**60,198**	**24,333**	**26,774**	**10,109**	**61,216**
Financial derivatives	1,562	43,647	0	0	43,647
Derivative financial liabilities	1,562	43,647	0	0	43,647
TOTAL	**61,760**	**67,980**	**26,774**	**10,109**	**104,863**

2020 in EUR thousand	Carrying amount		Contractual cash flows		
		Less than 1 year	Between 1 and 5 years	More than 5 years	Total
Liabilities to banks and other financial liabilities	6,222	1,391	4,515	511	6,417
Lease liabilities	39,103	7,751	22,051	10,124	39,926
Trade accounts payable	11,923	11,410	513	0	11,923
Other liabilities	4,480	1,202	3,278	0	4,480
Non-derivative liabilities	**61,728**	**21,754**	**30,357**	**10,635**	**62,746**
Financial derivatives	398	42,671	0	0	42,670
Derivative financial liabilities	398	42,671	0	0	42,670
TOTAL	**62,126**	**64,425**	**30,357**	**10,635**	**105,416**

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 (2021: EUR 69,435 thousand; 2020: EUR 59,318 thousand), contract assets (2021: EUR 38,353 thousand; 2020: EUR 38,420 thousand), other financial assets (2021: EUR 672 thousand; 2020: EUR 2,750 thousand), time deposits (2021: EUR 2,199 thousand; 2020: EUR 0), and cash and cash equivalents (2021: EUR 103,798 thousand; 2020: EUR 91,265 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 measures used in the past to assess creditworthiness did not have to be tightened as a result of the COVID-19 pandemic.

The risk of default by customers is reduced by mandatory credit assessments and measures to secure payment. For information on the determination of any impairments based on the expected credit losses model, see Note 23. Trade accounts receivable.

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 it uses, the Frequentis Group estimates that there is a low default risk in respect of its cash and cash equivalents.

Apart from investments and deposits totalling EUR 15,499 thousand (31 December 2020: EUR 12,741 thousand) at one bank, there is no significant concentration or material credit risk in respect of individual banks, customers, contractual partners or individual financial instruments. In response to the insolvency of Commerzialbank Mattersburg in 2020, counterparty risk management has been extended by defining core banks. Every 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 103,798 thousand (31 December 2020: EUR 91,265 thousand) and bear interest at variable rates or are not interest-bearing. A reduction in interest rates would increase negative interest. This is not, however, material as the cash and cash equivalents are divided among several banks. In the reporting period, negative interest of EUR 155 thousand (2020: EUR 14 thousand) was paid. This is recognised in other operating expenses. An increase in interest rates of one percentage point would increase interest income by EUR 1,038 thousand (2020: EUR 913 thousand).

Within financial liabilities, all non-current liabilities to banks and other non-current financial liabilities and lease liabilities bear interest at fixed rates (2020: EUR 266 thousand of the current liabilities to banks and other current financial liabilities bore interest at variable rates).

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 "Financial derivatives" 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).

2021	Measured at fair value			Measured at amortised cost		Total carrying amount
	Hedge accounting	Mandatory recognition at fair value through profit or loss	Equity instrument – at fair value through profit or loss	Financial assets	Other financial liabilities	
Financial assets						
Equity instrument			0			0
Time deposits				2,199		2,199
Trade accounts receivable				69,435		69,435
Financial derivatives		92				92
Other current and non-current assets				821		821
Cash and cash equivalents				103,798		103,798
Total		**92**	**0**	**176,253**		**176,345**
Financial liabilities						
Liabilities to banks and other financial liabilities					4,905	4,905
Trade accounts payable					13,422	13,422
Lease liabilities					37,579	37,579
Financial derivatives	716	846				1,562
Other liabilities		2,438			1,854	4,292
Total	**716**	**3,284**			**57,760**	**61,760**

2020	Measured at fair value			Measured at amortised cost		Total carrying amount
	Hedge accounting	Mandatory recognition at fair value through profit or loss	Equity instrument – at fair value through profit or loss	Financial assets	Other financial liabilities	
Financial assets						
Equity instrument			863			863
Trade accounts receivable				59,318		59,318
Financial derivatives	12	1,293				1,305
Other current and non-current assets				1,673		1,673
Cash and cash equivalents				91,265		91,265
Total	**12**	**1,293**	**863**	**152,256**		**154,424**
Financial liabilities						
Liabilities to banks and other financial liabilities					6,222	6,222
Trade accounts payable					11,923	11,923
Lease liabilities					39,103	39,103
Financial derivatives	267	131				398
Other liabilities		2,901			1,579	4,480
Total	**267**	**3,032**			**58,827**	**62,126**

The other liabilities of EUR 2,901 thousand, which are subject to mandatory recognition at fair value, are restated comparative amounts due to the correction of an error. For details see Note 33. Other liabilities.

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.

For the equity instrument, there is no quoted price available on an active market. Therefore, it is measured using parameters that are unobservable on the market. Measurement is based on the discounted cash flow method or any equity transactions close to the reporting date. The fair value is allocated to level 3 in the fair value hierarchy. There is currently no intention of selling the equity instrument.

The earn-out liability relating to the acquisition of ATRiCS is 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 liability relating to the put option of the non-controlling interests in ELARA Leitstellentechnik GmbH is 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.

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	Financial derivatives
Level 3: Measurement based on models with significant valuation parameters that are unobservable on the market	Equity instruments, earn-out liability, liability under put option

In the reporting period, an impairment loss of EUR 863 thousand was recognised on the 4.56% equity investment in the start-up Altitude Angel Ltd., Reading, UK, as it was not possible to demonstrate its fair value

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):

2021	Financial derivatives	Other financial instruments measured at fair value through profit or loss	Financial instruments measured at fair value through OCI	Financial assets measured at amortised cost	Financial liabilities measured at amortised cost
Net interest income/expense				79	-607
Valuation	-1,955	-13		6	
Loss allowance pursuant to IFRS 9				-908	
Currency gains/losses				-264	-220
Disposal gains/losses					
Net gains/losses recognised in profit or loss	**-1,955**	**-13**	**0**	**-1,087**	**-827**
Net gains/losses recognised in other comprehensive income	-298				
Net gains/losses	**-2,253**	**-13**	**0**	**-1,087**	**-827**

2020	Financial derivatives	Other financial instruments measured at fair value through profit or loss	Financial instruments measured at fair value through OCI	Financial assets measured at amortised cost	Financial liabilities measured at amortised cost
Net interest income/expense				94	-615
Valuation	1,625			-30,918	
Loss allowance pursuant to IFRS 9				-378	
Currency gains/losses				-1,524	22
Disposal gains/losses		-5			
Net gains/losses recognised in profit or loss	**1,625**	**-5**	**0**	**-32,726**	**-593**
Net gains/losses recognised in other comprehensive income	736				
Net gains/losses	**2,361**	**-5**	**0**	**-32,726**	**-593**

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

Financial derivatives

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 financial derivatives, 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, CHF, GBP, HKD, NOK, SGD, and USD.

Forward exchange contracts are concluded to hedge the risk of exchange rate fluctuations. Financial derivatives 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 (cash flow hedges). The hedging instruments (forwards, swaps) are concluded for a year and extended annually in the amount of the cash flows still expected (extension at historical rates). Payments from the hedged cash flows are expected to occur in the years 2022 to 2026.

Changes in the fair value of forward exchange contracts that are not designated in a hedging relationship are recognised in other operating income or other operating expense.

There was no reduction in forecast underlying transactions due to COVID-19 pandemic in either 2020 or 2021.

The carrying amount of financial derivatives 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 2021, verified by corresponding bank confirmations.

The following table shows the development of financial derivatives:

2021	**Derivative**		**Cash flow hedge**			**For MTM valuation**		**Total**
Sale currency	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
GBP	349	-401	0.87	0	0	349	8	8
SGD	427	-265	1.61	0	0	427	12	12
USD	-10,860	9,502	1.14	0	0	-10,860	72	72
		8,836			**0**		**92**	**92**
AUD	-2,351	1,439	1.63	0	0	-2,351	-49	-49
CAD	-2,600	1,703	1.53	0	0	-2,600	-28	-28
CHF	-345	318	1.09	0	0	-345	-17	-17
GBP	-15,045	16,706	0.90	-7,572	-695	-7,474	-274	-969
HKD	-700	77	9.11	0	0	-700	-2	-2
NOK	-1,672	152	11.01	0	0	-1,672	-13	-13
SGD	-5,030	3,120	1.61	0	0	-5,030	-128	-128
USD	-13,385	11,296	1.18	-327	-21	-13,058	-335	-356
		34,811			**- 716**		**- 846**	**-1,562**

2020	Derivative			Cash flow hedge		For MTM valuation		Total
Currency	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
CZK	3,700	-344	10.76	0	0	3,700	6	6
GBP	-5,377	6,114	0.88	-26	0	-5,351	168	168
HKD	-2,000	222	9.01	0	0	-2,000	14	14
SGD	-4,183	2,628	1.59	0	0	-4,183	66	66
USD	-21,677	18,591	1.17	-1,329	11	20,348	1,040	1,051
		27,211			**11**		**1,294**	**1,305**
AUD	-6,355	3,900	1.63	-397	-7	-5,958	-68	-75
CHF	-627	577	1.09	0	0	-627	-5	-5
GBP	-8,733	9,482	0.92	-7,828	-173	-906	-4	-177
JPY	-7,092	55	128.95	0	0	-7,092	-1	-1
NOK	-3,500	324	10.80	0	0	-3,500	-8	-8
SGD	427	-268	1.59	0	0	427	-7	-7
USD	-1,874	1,390	1.35	-2,071	-88	197	-38	-126
		15,460			**- 268**		**- 131**	**- 399**

For the carrying amount of the cash flow hedge and the carrying amount of the MTM valuation, a positive fair value of EUR 92 thousand was recognised in other receivables in 2021 (2020: EUR 1,305 thousand), while a negative fair value of EUR 1,562 thousand was recognised in other liabilities (2020: EUR 399 thousand). When the hedged item (revenue) is realised, the amount relating to the hedging transaction recognised in other comprehensive income is reclassified to revenues. The amount reclassified to revenues is shown in the development of the cash flow hedge reserve presented in the next table.

In principle, a prospective effectiveness test is performed when a derivative is designated as a hedging instrument. At every reporting date, the effectiveness of the hedge is reviewed and any potential ineffectiveness is determined. Ineffectiveness is measured by comparing the accumulated changes in the fair value of the designated hedging instruments since designation of the hedge and the accumulated changes in the fair value of the hedged item with reference to the hedged risk. A hypothetical derivative is used to determine the accumulated changes in the fair value of the hedged item with reference to the risk of a change in the exchange rate.

Ineffectiveness may arise if there is a significant discrepancy between the credit risk of the trading partner and that of the Frequentis Group. In addition, a reduction in the hedged revenues can result in over-hedging in the short term, resulting in ineffectiveness. No ineffectiveness occurred in 2021 or 2020.

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

	2021 EUR thousand	2020 EUR thousand
As at 31 December of the previous year	**-123**	**-675**
Result from changes in fair value	-300	256
Deferred taxes on this amount	75	-64
Reclassification to the income statement	3	480
Deferred taxes on this amount	-1	-120
As at 31 December of the financial year	**-346**	**-123**

Based on the sensitivity analyses performed, a 10% increase in exchange rates on the reporting date would have increased the fair value of the cash flow hedge by EUR 835 thousand and the fair value of the MTM valuation by EUR 3,257 thousand, while a 10% reduction in exchange rates would have reduced the fair value of the cash flow hedge by EUR 1,020 thousand and the fair value of the MTM valuation by EUR 3,981 thousand.

37. Leases

Leases 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. When office premises in small subsidiaries are leased, 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 cannot be terminated until 2026. As at 31 December 2020, it was assumed that the lease would be extended to 2028. This was reviewed as at 31 December 2021 and the period was adjusted to 2029. As a result, the right-of-use asset increased by EUR 3,062 thousand.

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 larger 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 smaller IT appliances 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 included 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:

2021	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 2021	**49,363**	**587**	**2,707**	**52,657**
Foreign currency translation	499	0	10	509
Changes in reporting entities	2,670	0	198	2,868
Addition	5,003	0	850	5,853
Disposal	-507	0	-321	- 828
As at 31 December 2021	**57,028**	**587**	**3,444**	**61,059**
Accumulated depreciation				
As at 1 January 2021	**-12,775**	**-19**	**-1,112**	**-13,906**
Foreign currency translation	-231	0	-5	-236
Changes in reporting entities	-2,004	0	-113	-2,117
Addition	-7,336	-96	-799	-8,231
Disposal	507	0	294	801
As at 31 December 2021	**-21,839**	**- 115**	**-1,735**	**-23,689**
Carrying amount				
As at 31 December 2021	**35,189**	**472**	**1,709**	**37,370**

2020	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 2020	**44,777**	**0**	**2,058**	**46,835**
Foreign currency translation	-374	0	-10	- 384
Changes in reporting entities	0	0	9	9
Addition	5,582	587	811	6,980
Disposal	-622	0	-161	- 783
As at 31 December 2020	**49,363**	**587**	**2,707**	**52,657**
Accumulated depreciation				
As at 1 January 2020	**-6,535**	**0**	**-502**	**-7,037**
Foreign currency translation	96	0	2	98
Changes in reporting entities	0	0	-4	-4
Addition	-6,925	-19	-746	-7,690
Disposal	589	0	138	727
As at 31 December 2020	**-12,775**	**- 19**	**-1,112**	**-13,906**
Carrying amount				
As at 31 December 2020	**36,588**	**568**	**1,595**	**38,751**

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 39,103 thousand (comprising EUR 31,811 thousand non-current and EUR 7,292 thousand current) as at 1 January 2021 to EUR 37,579 thousand (comprising EUR 29,785 thousand non-current and EUR 7,794 thousand current) as at 31 December 2021.

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

	2021 EUR thousand	2020 EUR thousand
Depreciation of right-of-use assets	8,231	7,690
Interest expense for lease obligations	215	242
Lease payments for short-term leases	540	527
Lease payments for low-value assets	33	25
Total	**9,019**	**8,484**

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

	2021 EUR thousand	2020 EUR thousand
Payments of principal on lease liabilities	8,228	7,633
Interest paid on lease liabilities	215	242
Lease payments for short-term leases and low-value assets	573	552
	9,016	**8,427**

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 2021, the Frequentis Group concluded several leases that start in 2022. However, these are insignificant leases for vehicles and the rental of buildings.

Leases as lessor

Revenues from leases where the Frequentis Group is the lessor amounted to EUR 50 thousand in the reporting period (2020: EUR 42 thousand). These lease revenues will be EUR 9 thousand in 2022. As at the reporting date, there were no further leases with a term extending beyond 2022. These leases are classified as operating leases.

38. 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:

	2021 EUR thousand	2020 EUR thousand
Goods and services supplied and other income	24	31
Goods and services received and other expenses	558	549
Receivables outstanding as at 31 December	1	5
Liabilities outstanding as at 31 December	0	0

All transactions are concluded 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:

	2021 EUR thousand	2020 EUR thousand
Goods and services supplied and other income	453	167
Goods and services received and other expenses	2,305	2,308
Receivables outstanding as at 31 December	11	12
Liabilities outstanding as at 31 December	38	71

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 concluded with companies and persons defined as related parties:

	2021 EUR thousand	2020 EUR thousand
Expenses for consulting services	488	303
Expenses for project support services	338	223
Expenses for software development and engineering	464	613
Rental payments (principal and interest) and operating costs	3,801	3,776
Revenues	18	162
Receivables as at December 31	0	0
Payables as at December 31	104	31

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

Austrian Research Promotion Agency (Österreichische Forschungsförderungsgesellschaft/FFG): Mr. 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.

In the reporting period, advance payments for future research revenues in the amount of EUR 144 thousand (2020: EUR 122 thousand) were disbursed by FFG. Funding received from FFG in the reporting period totalled EUR 237 thousand (2020: EUR 893 thousand).

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
- Sylvia Bardach, until 15 April 2021
- Hermann Mattanovich
- Peter Skerlan, from 16 April 2021

The total remuneration paid to the Executive Board (excluding payroll-related costs) was EUR 2,737 thousand in the reporting period (2020: EUR 1,271 thousand). The remuneration of the Executive board comprised fixed components (annual base salary, premiums for pension reinsurance, and benefits in kind) and variable components (short-term variable remuneration and long-term incentive plans (LTIP)). The short-term variable components are linked to the achievement of financial targets for the company and individual targets.

Frequentis AG agreed long-term incentive plans with the Chairman of the Executive Board, Mr. Norbert Haslacher, in 2019, 2020, and 2021 (LTIP 2019, LTIP 2020, and LTIP 2021). For further information, see Note 29. 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 391 thousand were incurred in the reporting period (2020: EUR 298 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 159 thousand (2020: EUR 109 thousand), interest cost of EUR 32 thousand (2020: EUR 39 thousand), and pension insurance expense of EUR 200 thousand (2020: EUR 150 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 259 thousand in 2021 (2020: EUR 33 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 148 thousand in the reporting period (2020: EUR 145 thousand).

An office and support services are provided free of charge to the Chairman of the Supervisory Board, Mr. Johannes Bardach, for the performance of his function as Chairman of the Supervisory Board. EUR 52 thousand (EUR 4 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 2021, there was an outstanding receivable of EUR 4 thousand (2020: EUR 4 thousand) for this.

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

39. Significant events after the reporting date

With the acquisition of 51% of the shares of the Italian company Regola S.r.l. on 3 January 2022 the growth strategy was continued. Regola's CAD (computer-aided dispatching) software solutions complement Frequentis' portfolio in the Public Safety & Transport segment.

The contractually agreed purchase price comprises a basic purchase price of EUR 2,050 thousand, which was paid on 3 January 2022, and adjustments in connection with the net financial position and working capital as at the closing date of the business combination. Furthermore, there is an earn-out liability of maximum EUR 500 thousand, which has not yet been finally measured. A final purchase price allocation was not available when the financial statements were prepared. In 2021, Regola S.r.l. generated revenues of EUR 4,686 thousand and EBIT of EUR 98 thousand.

As part of the socio-economic tax reform in 2022, Austria decided to reduce the corporation tax rate to 24% in 2023 and 23% in 2024. This was published in the Austrian Federal Law Gazette (Bundesgesetzblatt) on 14 February 2022.

The outbreak of war in Ukraine does not have any material economic impact on Frequentis at present. Revenues with Russia, Belarus, and Ukraine were less than 1% of consolidated revenues in the reporting period.

40. Additional information

The Frequentis Group had an average of 2,157 employees in 2021 (2020: 1,907 employees).

Audit fees

In the reporting period, audit expenses of EUR 127 thousand (2020: EUR 122 thousand) were incurred for the audit of the consolidated financial statements and the annual financial statements of Frequentis AG, expenses of EUR 45 thousand (2020: EUR 49 thousand) were incurred for other consulting services, and expenses of EUR 17 thousand (2020: EUR 16 thousand) were incurred for other services.

41. 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:

	2021	2020
EBIT margin (based on revenues)	8.7%	9.0%
Equity ratio	41.1%	40.1% *)
Net cash in EUR thousand	101,093	85,043

*) Comparative amounts restated, see Note 33. Other liabilities

The Frequentis Group calculates EBIT as follows:

	2021 EUR thousand	2020 EUR thousand
Profit/loss before tax	27,925	-4,422
Financial income	-79	-94
Financial expenses	607	615
Net change in impairment losses on financial assets	857	30,923
Earnings from investments accounted for at equity	-342	-214
Total	**28,968**	**26,808**

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.

42. 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, 14 March 2022

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 December 31, 2021, 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 December 31, 2021 and its financial performance for the year then ended in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU and with requirements stated in par. 245a UGB.

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 in accordance with any other regulations or requirements agreed 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:

- 1. Project Accounting
- 2. Accounting for the acquisition of L3Harris product lines in Air Traffic Management (L3Harris transaction).

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 form 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 arise due to COVID-19 constraints, in particular travel restrictions, on projects acceptances and therefore project costs. Due to the significant volume of the project business, the risk for the consolidated statements consists 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 “Impact of COVID-19 pandemic”, “IFRS 15 Revenue form Contracts with Customers” as well as “Significant estimates and exercise of discretion”. Further information can be found in chapter 4 “Revenues” within the notes on the consolidated income statement and in chapter 24 “Contract assets from contracts with customers” and chapter 32 “Contract liabilities from contracts with customers”.

Audit repsonse:

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 COVID-19. 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.

Accounting for the acquisition of L3Harris product lines in Air Traffic Management (L3Harris transaction)

Situation and reference to further information:

On February 23, 2021, the Frequentis Group signed an agreement for the full acquisition of civil and military product lines of the ATM voice communication systems as well as the software and cloud solutions for air traffic optimization (traffic synchronization) of the US group L3Harris Technologies, Inc. (hereinafter referred to as L3Harris). The acquisition comprised 100% of the shares in the following companies:

- Harris Orthogon GmbH, Germany
- 1297741 B.C. Ltd., Canada (transferred Harris ATC Solutions business of Harris Canada Systems Inc.)
- Harris C4i Pty. Ltd., Australian

The Frequentis Group has accounted each company as separate business combination, which have resulted in different acquisition dates.

According to IFRS 3, the acquirer shall measure the identifiable assets acquired and the liabilities assumed at their acquisition-date fair values.

In determining the fair value of the acquired assets and liabilities significant estimates and judgements had to be made. The risk in the context of the purchase price allocation is the complete recognition as well as measurement of the identified assets and liabilities, in particular the intangible assets.

Information the accounting for the acquisition can be found in chapter 1 "General information" under "Changes to the consolidated group" of the notes.

Audit response:

In order to gain an understanding of the agreements, material terms and conditions made, we reviewed the purchase contract as part of our audit and assessed whether the accounting treatment with respect to the first-time consolidation dates, the terms of the purchase price and other conditions were in accordance with IFRS 3. In this context, we have also assessed whether the classification as separate business combinations for accounting purposes is justified despite the existence of an overall contract. We held discussions and interviews with management and the experts involved, to assess the appropriateness of assumptions and estimates within the purchase price allocation for the acquired businesses as well as assets and liabilities.

We have assured ourselves of the complete identification of assets and liabilities, the appropriateness of the accounting policies applied and the arithmetical accuracy of the purchase price allocation in the respective expert opinions. Moreover, we have also performed audit procedures, which in particular included random reviews of the project accounting in accordance with IFRS 15, recognition of intangible assets in accordance with IAS 38 and the recognition of financial liabilities and provisions at the acquisition date. With regard to the recognition of intangible assets (software products), we assessed the expected cash flows based on planning calculations and further documentation and the appropriateness of the discount rates applied.

We also reviewed whether the presentation of the acquisitions in the consolidated financial statement and in the disclosures in the notes were presented in accordance with the requirements IFRS 3.

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, the corporate governance report and the compensation 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 the supervisory board/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 requirements stated in par. 245a UGB 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 May 20, 2021. We were appointed by the Supervisory Board on August 17, 2021. 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 nonaudit 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. Mag. Gerhard Posautz, Certified Public Accountant.

Vienna, 14 March 2022

BDO Austria GmbH

Wirtschaftsprüfungs- und Steuerberatungsgesellschaft

Mag. Gerhard Posautz
Auditor

Mag. 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, 14 March 2022

Norbert Haslacher
Chairman of the Executive Board

Peter Skerlan
Member of the Executive Board

Hermann Mattanovich
Member of the Executive Board