Group Management Report 2019

as at 31 December 2019

Economic environment

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 compared with other sectors of industry. Frequents' business performance would be adversely affected by a significant global decline in one of these five areas.

The International Monetary Fund (IMF) published its World Economic Outlook Update in January 2020. Consequently, the forecasts for 2020 set out below do not include the impact of the coronavirus epidemic. The IMF's present baseline scenario, which includes the effects of coronavirus, assumes a lower growth rate for the global economy and China, as explained in the IMF's press release of 22 February 2020.

The World Economic Outlook Update of January 2020 assumes that the global economy grew by 2.9% in 2019 and projects a slight improvement to 3.3% in 2020 (3.2% using the assumptions of the above baseline scenario). It considers that consumer spending and capital expenditures by businesses are still resilient. However, downside risks remain prominent, including increasing geopolitical tensions and the impact of coronavirus.

For the USA, the report assumes growth of 2.3% in 2019 and 2.0% in 2020. The growth trend in the euro zone is weaker than in the USA, with the IMF anticipating growth of 1.2% in 2019 and 1.3% in 2020. Looking at the major euro-zone economies, the highest growth rates are forecast for Spain, with projected growth of 2.0% in 2019 (2020: 1.6%), followed by France with a growth rate of 1.3% (2020: 1.3%), Germany with growth of 0.5% (2020: 1.1%), and Italy with growth coming in at 0.2% (2020: 0.5%). The forecast for the UK is slightly above the level for the euro zone, with projected growth rates of 1.3% for 2019 and 1.4% for 2020.

For the emerging and developing economies in Asia, the forecast growth rates are 5.6% for 2019 and 5.8% for 2020. The projected growth forecast for China is above-average at 6.1% for 2019 (2020: 6.0%; 5.6% assuming the IMF's baseline scenario as outlined above), while the projection for India is 4.8% for 2019 (2020: 5.8%).

The IMF assumes growth of 0.1% in Latin America in 2019 (2020: 1.6%). The projection for Brazil in 2019 is 1.2% (2002: 2.2%), while for Mexico it is 0.0% (2020: 1.0%).

The growth projection for Middle East and Central Asia for 2019 is 0.8% (2020: 2.8%).

Business performance

The Frequentis Group continued its sustained growth trajectory in 2019. The IPO was a major event in the ongoing development of the company. Since 14 May 2019, shares in Frequentis AG have been listed on the prime market at the Vienna Stock Exchange and in the general standard on the Frankfurt Stock Exchange, with the ticker symbol FQT, ISIN: ATFREQUENT09.

Order intake

Order intake in the Frequentis Group increased by 9.0% or EUR 27.4 million, from EUR 306.3 million in 2018 to EUR 333.7 million in 2019. As in previous years, customers mainly placed orders with Frequentis in the second half of the year. In 2019, the ratio of orders placed in the second half of the year versus the first half was 60%:40%.

The distribution of order intake between the two segments in 2019 was as follows: Air Traffic Management 67% (2018: 64%), Public Safety & Transport 33% (2018: 36%).

The regional breakdown of order intake in 2019 was as follows: the European home market remained the dominant market, accounting for 64% of order intake (2018: 55%), ahead of the Americas, which accounted for 19% (2018: 17%) and Asia, with a share of 12% (2018: 11%). They were followed by Australia/Pacific with 4% (2018: 16%) and Africa with < 2% (2018: < 1%).

Highlights of order intake in the Air Traffic Management segment

Frequentis' leading position in the market for digital (remote) towers is underscored by numerous orders from around the world: Airways New Zealand (the air navigation service provider for New Zealand) ordered a second digital tower, and two systems were sold to Argentina and Brazil.

The Austrian air navigation service provider Austro Control placed an order for the latest generation voice communication system, another milestone in the decades-long collaboration with this organisation.

An order of strategic significance has been received from the Norwegian air navigation service provider for the delivery of a nationwide system for the management of unmanned aircraft (drones).

Installed base business in the Defence business domain is developing positively, with orders received from the Czech Republic and Slovakia for extensive modernisation of their air defence systems. Special mention should be made of an order from the US Navy for a voice and data communication system as part of a program for unmanned aircraft for in-flight refuelling of planes.

Highlights of order intake in the Public Safety & Transport segment

In the Public Safety business domain, Frequentis was able to beat strong competition for orders from the Metropolitan Police in London (modernisation of communications infrastructure) and the Scottish police force. Further orders from the police organisations in North Rhine-Westphalia and the Rhineland Palatinate for the ongoing development of their communications systems using the 3020 LifeX™ multimedia platform as a software solution for safety-critical control centres provide further evidence of Frequentis' strong position.

In the Public Transport business domain, a broad range of orders was secured from the installed base in Europe and overseas. These included both roll-out orders and orders for releases and upgrades.

In the Maritime business domain, Frequentis' good position is highlighted by orders from Greenland and Greece for the Global Maritime Distress and Safety System (GMDSS).

Orders on hand

Orders on hand as at 31 December 2019 amounted to EUR 391.5 million, an increase of 10.2% from the level of EUR 355.2 million as at 31 December 2018. At year-end 2019, the Air Traffic Management segment accounted for 60% of total orders on hand (year-end 2018: 61%) and the Public Safety & Transport segment for 40% (2018: 39%).

Revenues and operating performance

Revenues rose by 6.3% to EUR 303.6 million in 2019, with both segments reporting growth. Public Safety & Transport grew revenues by 11.2% to EUR 92.4 million, faster than the Air Traffic Management segment, where revenues increased by 4.3% to EUR 211.2 million.

In 2019, the Air Traffic Management segment accounted for 70% of Group revenues (2018: 71%) and the Public Safety & Transport segment accounted for 30% (2018: 29%). Looking at the regional revenue split in 2019, Europe accounted for 61% (2018: 60%), the Americas for 19% (18%), Asia for 13% (12%) , Australia/Pacific for 6% (7%), Africa for 1% (2%), and <1% (<2%) of revenues were not allocated to a region.

The operating performance increased by 5.6% to EUR 310.3 million, which was slower than revenue growth. In particular, other operating income was lower than in the previous year.

Profit

The cost of materials and purchased services increased by 6.2% to EUR 81.6 million (2018: EUR 76.8 million), so the rate of increase was below that of revenues. By contrast, personnel expenses increased by 8.3% to EUR 154.8 million (2018: EUR 142.9 million), driven principally by wage and salary increases, the higher average headcount and the rise in provisions for bonuses and variable salary components.

The other operating expenses decreased by EUR 8.9 million to EUR 43.7 million in 2019 (2018: EUR 52.5 million), mainly because lease expenses totalling EUR 7.5 million were shifted to depreciation and amortisation and financial expenses as a result of initial application of IFRS 16 (↗ *Consolidated financial statements, note 41*). The IPO expenses were incurred in both 2019 and 2018, but a fair amount of the expenses was recognised in equity, so no further significant amount for the IPO was included in other operating expenses in 2019.

EBITDA (earnings before interest, taxes, depreciation and amortisation) improved from EUR 21.6 million in 2018 to EUR 30.2 million in 2019 (+EUR 8.6 million). EUR 7.1 million of this increase was due to the shift in lease expense outlined above. The EBITDA margin (relative to revenues) was 9.9%, compared with 7.6% in the previous year.

Depreciation and amortisation increased by EUR 7.0 million to EUR 13.0 million. The increase resulting from the change in accounting prescribed by IFRS 16 was EUR 7.1 million, while current depreciation and amortisation decreased by EUR 0.1 million.

EBIT rose 10.3% or EUR 1.6 million to EUR 17.2 million (2018: EUR 15.6 million). The EBIT margin (relative to revenues) improved to 5.7% in 2019 (2018: 5.5%), partly due to high-margin projects.

Financial results fell to -EUR 0.4 million (2018: +EUR 0.1 million). This was mainly attributable to the shift in some lease expenses to interest expense as outlined above. Earnings of investments accounted for at equity were EUR 0.1 million in 2019 (2018: EUR 0.2 million).

Profit before tax improved 6.7% to EUR 17.0 million in 2019 (2018: EUR 15.9 million). Income tax expense rose 9.3% to EUR 4.5 million (2018: EUR 4.1 million) and the consolidated profit improved to EUR 12.5 million, up from EUR 11.8 million in 2018. Basic and diluted earnings per share were EUR 0.93 in 2019 (2018: EUR 0.94).

Asset and capital structure

At year-end 2019, total assets were 37.5% higher at EUR 272.1 million (year-end 2018: EUR 198.0 million), principally as a result of the initial application of IFRS 16 (↗ *Consolidated financial statements, note 41*).

Non-current assets amounted to EUR 71.5 million as at 31 December 2019 (year-end 2018: EUR 28.8 million). The main items here were property, plant and equipment, which totalled EUR 48.2 million (year-end 2018: EUR 9.1 million) and intangible assets, which totalled EUR 7.6 million (year-end 2018: EUR 6.5 million). The increase in property, plant and equipment was mainly due to the initial application of IFRS 16. Current assets amounted to EUR 200.6 million (year-end 2018: EUR 169.2 million). The principal items here are cash and cash equivalents and time deposits, which together came to EUR 74.9 million (year-end 2018: EUR 55.5 million), trade accounts receivable of EUR 58.5 million (year-end 2018: EUR 44.4 million), and contract assets from contracts with customers of EUR 38.4 million (year-end 2018: EUR 40.9 million).

On the liabilities side, shareholders' equity was the biggest item, amounting to EUR 116.2 million at year-end 2019 (year-end 2018: EUR 85.6 million). The increase in shareholders' equity was mainly attributable to the inflow of funds from the IPO in May 2019. The equity ratio was 42.7% at year-end 2019 (year-end 2018: 43.3%).

Non-current liabilities totalled EUR 58.9 million at year-end 2019 (year-end 2018: EUR 28.1 million). The largest item here was non-current lease liabilities, a new item introduced by IFRS 16 which totalled EUR 32.8 million and was mainly responsible for the increase in non-current lease liabilities.

Current liabilities were EUR 97.1 million (year-end 2018: EUR 84.2 million), with the increase mainly coming from the new item current lease liabilities introduced in 2019 as a result of IFRS 16. At year-end 2019, this item contained discounted rental payments of EUR 7.3 million (mainly for offices) for 1 year, i.e. for 2020.

The largest items within current liabilities were contract liabilities from contracts with customers totalling EUR 48.7 million (year-end 2018: EUR 48.6 million), trade accounts payable of EUR 13.5 million (year-end 2018: EUR 13.8 million), provisions of EUR 13.5 million (year-end 2018: EUR 9.9 million), and other current liabilities of EUR 11.2 million (year-end 2018: EUR 8.8 million).

Net cash (time deposits and cash and cash equivalents less liabilities to banks and other financial liabilities) was EUR 77.8 million as at 31 December 2019 (2018: EUR 55.4 million). At year-end 2019, net cash contained advances from customers of EUR 30.5 million (year-end 2018: EUR 27.8 million). The increase in the net cash position was mainly due to the increase in cash and cash equivalents resulting from the proceeds of the IPO. At year-end 2019, cash and cash equivalents were EUR 66.9 million, compared with EUR 45.5 million at year-end 2018.

Cash flow

The cash flow from operations improved from EUR 16.2 million in 2018 to EUR 34.2 million in 2019. This was attributable to higher depreciation (mainly due to the initial application of IFRS 16), the change in provisions, and the improvement in profit before tax.

The cash flow from operating activities increased from EUR 4.6 million in 2018 to EUR 17.7 million in 2019. The improvement was due to the improvement in the cash flow from operations and the positive change in contract assets and other liabilities. On the other hand, the changes in contract liabilities and trade accounts receivable had a negative effect.

The cash outflow for investing activities was EUR 4.6 million in 2019, compared with an outflow of EUR 4.4 million in 2018. Capital expenditure was EUR 4.5 million in 2019, which was below the 2018 level of EUR 4.8

The cash flow from financing activities improved to EUR 8.0 million in 2019, mainly due to the inflow of funds from the IPO (EUR 21.6 million), compared with an outflow of EUR 14.2 million in 2018. IFRS 16 resulted in reclassification of cash outflows for the payment of lease liabilities (2019: EUR 7.2 million), which were contained in the cash flow from operating activities in 2018 as they were a component of profit before tax.

This overall cash flow in the reporting period was therefore positive at EUR 21.2 million (2018: outflow of EUR 14.1 million). Cash and cash equivalents were EUR 66.9 million as at 31 December 2019 (31 December 2018: EUR 45.5 million). It should be noted that as at 31 December 2019, time deposits (short and long-term deposits at banks) of EUR 18.0 million were not included in cash and cash equivalents.

Employees

The headcount increased by 4.9% to an average of 1,849 employees in 2019 (average in 2018: 1,763 employees).

Business relations with related parties

Information on business relations with related parties can be found in the notes to the consolidated financial statements.

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 4.3% to EUR 211.2 million in 2019 (2018: EUR 202.5 million). EBIT was EUR 10.4 million (2018: EUR 11.8 million) and the EBIT margin (relative to revenues) dropped to 4.9% in 2019 (2018: 5.9%).

Highlights from the operating business

As the leading provider of voice and data communication systems for civil air traffic control, Frequentis implemented a state-of-the-art voice communication system, an emergency system, and a network solution with full IP integration for the new mega-airport in Beijing. The network comprises the two towers at the new airport, the new and existing systems to control and monitor landing and take-off, and connection to the air traffic control centre in Beijing.

The modernisation programme for the Dutch air navigation service provider LVNL was completed. Frequentis equipped two towers at Amsterdam Schiphol airport with smartSTRIPS. Digitalising the paper strips formerly used increases automation, enhances efficiency, and improves air traffic controllers' workflows. In the field of aeronautical information management, a project with Jeppesen was completed. Delivery of a new release for the European Aeronautical Information Systems Database (EAD) makes Frequentis the market leader in these complex, large-scale systems.

In the UK, Jersey Airport became the first British airport to receive approval for operational deployment of a digital (remote) tower based on Frequentis technology.

In Malta, a message handling system was implemented as a uniform switch for the handling of aeronautical data and messages.

In Finland, a wide area multilateration system (aircraft surveillance system as a substitute for radar) was taken into service.

Within the framework of the Defence business domain's long-term collaboration with armasuisse and the Swiss air force on the "VCS Airbase" project to replace the voice communications infrastructure at seven military airbases, systems were successfully brought into service at the first two airbases.

Two assignments of strategic importance are Frequentis' involvement in the AIRlabs Austria innovation lab research project and the successful conclusion of the first drone demonstration in the Gulf of Finland (SESAR GOF U-space project), a research project geared to the safe integration and environmentally friendly operation of drones in ground-level airspace.

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 11.2% to EUR 92.4 million in 2019 (2018: EUR 83.1 million). EBIT was EUR 7.0 million (2018: EUR 3.4 million) and the EBIT margin (relative to revenues) rose to 7.5% in 2019 (2018: 4.1%).

Highlights from the operating business

The following projects are examples of the positive development of this segment. In the Public Safety business domain, the success of the 3020 LifeX™ multimedia communication platform continued. For example, the system was taken into service by the Liechtenstein national police force. The collaboration with Nødnett on the Norwegian public safety network is continuing to develop positively. Several control centres in Germany have been equipped with Frequentis' ASGARD product line, which is specifically designed for fire service command centres and industrial control rooms.

Public Transport is implementing the Unified Railway Communication and Application (URCA) System for the Finish transport infrastructure authority. Here, Frequentis is providing a cost-saving and efficient communication solution. Its innovative nature has been highlighted by the presentation of the International Critical Communications Award (ICCA) for the technical process, which also granted a European patent in June 2019.

In the Maritime business domain, an important acceptance milestone was achieved in the delivery of a maritime communication system to South Korea. The Global Maritime Distress and Safety System (GMDSS) is used in 18 countries around the world. The rollout of this system for the Norwegian coastal radio operator, with which Frequentis has worked together successfully for more than 20 years, is proceeding on schedule.

Research & development

Rising cost pressure and continual changes in the operating environment are currently the greatest challenges for customers operating safety-critical services. 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. 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.

Future aspects such as examining artificial intelligence or blockchain technology for possible use in safety-critical applications are driven forward centrally by the Corporate Research department. 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 Section 267a Austrian Commercial Code (UGB).

Consolidated corporate governance report

The consolidated corporate governance report is available at 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. Risk awareness, the vigilance of all staff, and early identification of business and natural risks are well developed and are incorporated in a solid risk policy.

Variable capacity utilisation scenarios are a central risk factor, which the company addresses through extensive scenario management. This allows timely recognition and Group-wide counteraction, even in business situations that develop in an unforeseen manner.

Project management as an operational mainstay

Risk management is therefore 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 management excellence, 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 business units, which monitor operating performance and marginal income with a view to the Group's profit.

Group-wide risk management

Risk and opportunity management is an important precondition for business activity. The Frequentis Group therefore regularly undertakes an extensive 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 Group-wide risk management system, an extensive internal control (ICS) system and an internal audit department.

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 Vice President Group Controlling is responsible for this process.

Risks relating to the (macro)economic and political environment

Frequentis' success depends on the political and economic environment
Its 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.

Frequentis could be adversely affected by the (mis)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. Justified claims on guarantees with high caps and/or long/undetermined maturities or illegitimate utilisation of such bank guarantee could cause liquidity or other problems. Similarly, it did and could happen for tender invitations for goods and services to be delivered to customers in countries where Frequentis' domestic relationship banks do not have regular business connections, it is 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 has provided numerous comfort letters on behalf of its subsidiaries. This means that the company assumes the risk of contract performance by many of its subsidiaries.

Exercise of political influence and protectionism could adversely affect Frequentis
Public and semi-public organisations dominate Frequentis' customer structure. Such customers may, for various reasons, prefer suppliers from certain countries over Frequentis.

The coronavirus epidemic could have a negative impact on the economic development of 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 coronavirus epidemic, 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 measures 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. The extent and duration of the impact of coronavirus on the global economy and, in particular, the markets served by Frequentis are unclear at present.

Risks relating to Frequentis' industry and business

Frequentis could be adversely affected by unpredictabilities, which are characteristic of the tender project business and by 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, which impact can be the more significant the larger a project is.

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 intakes, 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.

Uncertain, delayed, or deferred future orders could adversely affect the Group
The success of Frequentis Group depends on its ability to obtain new customer orders and secure new projects. It is difficult to predict if and when a project, for which Frequentis Group entered a tender, will be awarded.

The Group could be adversely affected by non-negotiable contract terms in public tender projects and, in particular, by unlimited liability clauses in its contracts
Public tenders and other contracts sometimes contain unfavourable and disadvantageous contract terms (such as substantial penalties or change of control clauses as well as foreign jurisdiction clauses) that are not individually negotiable and have to be accepted in order to successfully secure the contract. Among others, Frequentis could be forced to accept unlimited liability for its products and services.

Frequentis could be adversely affected by fluctuations in earnings due to the impact of major contracts
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.

Cyberattacks could pose a substantial risk to Frequentis' business
Given that Frequentis and its business are heavily dependent on IT security, cyberattacks could pose a substantial risk to Frequentis' 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, which could have an adverse effect on the business, financial condition, and results of operations of the Frequentis Group.

The Group could be adversely affected by changes in technological standards; the development of products could fail or take more time than permitted by the technological progress; development costs for products with insufficient demand could lead to stranded investments; the implementation of change programmes could fail or require more time and cost
High technological standards in the market in which Frequentis is operating require a continuous development of the offered products. Fundamental changes in technology might occur without the involvement of Frequentis and Frequentis could fail to accommodate such technological development. If Frequentis fails to successfully implement new technological standards in its products and services in time, it might not correspond to the market needs and be accepted and purchased by existing and prospective customers. If any of these risks materialise, this could have an adverse effect on the business, financial condition, and result of operations of the Frequentis Group.

The Group could be adversely affected by technological malfunctions and product failures
The products, systems, and equipment are based on different hardware and software components that are of high technological complexity which might not function and work together flawlessly, leading to malfunctions. Furthermore, products may be affected by design failures, software bugs, hardware failures, or similar deficiencies that could lead to a non-functioning or to malfunctions of the products.

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

Cost overruns could adversely affect the Group
Changes in costs and productivity 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 to be unprofitable or even loss-making.

A loss of existing customers could adversely affect Frequentis
Installed base business is the provision of services, of 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 Group's products already operated by such customers. Since customers often rely on the Group's products and services for a longer 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.

Embargoes and other trade restrictions could adversely affect the business of the Group
Since Frequentis operates in the development, production, and engineering of safety-critical communication and information solutions, inter alia, for the defence and public safety market, certain products and services provided to customers around the world may be or become exposed to the risk of current or future embargoes, blacklisting, and other trade restrictions.

Frequentis could be adversely affected if it fails to defend its current market position against competitors
Frequentis is active in highly competitive markets where a few large international companies compete against a number of smaller businesses. Some of Frequentis' Group's competitors have a higher market capitalisation and greater financial power, being in a better position to adapt to changes in the market, finance in new technologies, and bypass financial bottlenecks.

Frequentis may not be able to generate enough cash flow from business operations to finance the Group's consistent high liquidity and net working capital requirements
Frequentis' cash flow may be affected by capital tied up in inventory (need to keep sufficient amounts of raw materials and component parts to ensure lifetime support) and by the interval between receipt of orders and receipt of payments on those orders from customers. The length of these intervals is driven by total development and production time, delivery times, and the time it takes to receive payment from the customer. Likewise, payments for products and services provided by subcontractors and the receipt of payment by the customer can cause delays.

The loss of key personnel and the failure to attract, develop, or retain skilled or qualified employees can adversely affect Frequentis; new key personnel and employees might not have sufficient experience and could lead to a decline of Frequentis' know how
The success of Frequentis also depends on the capabilities, experience, market knowledge, technical knowledge and performance of its management, experts in various positions, and employees. Competition for skilled employees in the business in which Frequentis operates is huge. New employees or management resources might not have sufficient or appropriate experience, skills and know-how as are required for Frequentis' business operations, products, and projects.

Frequentis could be adversely affected by a fluctuation of raw material prices and increasing labour costs
The costs of raw materials and components depend on the world market prices for electronic equipment, some of which have significantly fluctuated in recent years and which may be subject to significant increases in the future. Similarly, labour costs may increase over time, e.g. because of inflation adjustments or because of increased wage levels due to the intense competition for qualified personnel.

Frequentis could be adversely affected by increased cost pressure caused, for example, by competitors in low wage countries
Some of Frequentis' competitors may have a lower cost base and may be able to offer their products and services at more attractive prices. Frequentis may, in such a situation, not be able to lower its cost base.

Frequentis could be adversely affected by long-term commitments
For certain of its projects, Frequentis Group is obliged to replace system parts or to deliver spare parts for up to 15 years or longer and needs to keep available the corresponding products and knowhow; such undertakings could lead to unforeseen increased storing costs which bind Frequentis Group's funds or could cause complications if necessary suppliers fail to deliver such components in the required quantity and quality or discontinue the supply of such components at all. 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 its customers could adversely affect Frequentis
In case of non-performance of payment obligations by a customer, particularly in major projects, Frequentis Group bears a significant credit risk. Payment delays by public or semi-public entities could also be caused by a delay in budget negotiations or by political uncertainties.

Frequentis could be adversely affected by a loss of suppliers or interruptions or shortages in supply of the Group's services, software programs, component parts, sub-assemblies, or modules
A delay in the delivery of services or supplies by Frequentis' suppliers could result in delays in projects or the delivery of products, which could ultimately lead to withdrawn orders, cancelled projects, penalty claims, liquidated damages and the like, and could result in reduced output and lower sales. If Frequentis were permanently to lose a supplier of important components or services, such as hardware or software development services, it might be forced to alter the design of its products in order to use different services and it could be at least temporarily unable to proceed with a certain project or products.

If Frequentis fails to meet quantitative requirements, its know-how might not be sufficient to win new customers or retain existing customers
Customers' tenders often have quantitative requirements for their projects, e.g. references from previous customers and projects, a minimum annual turnover and / or revenue, or quantitative requirements relating to the Group's employees, e.g. a minimum number of system experts located in the customer's country.

Frequentis could be adversely affected by fluctuations of currency exchange rates and rising interest rates
Frequentis has offices, subsidiaries, suppliers, and customers in many countries outside the eurozone. A considerable part of the revenues and costs related to individual projects is settled in other currencies than the euro, while most of the Frequentis Group's cost base is in euros. Furthermore, currency fluctuations cannot be hedged between the time when the Group places an offer for a specific project and the time when the order is actually placed (usually a period over a period of up to twelve months), because there is no certainty that it will be awarded the contract. Similarly, rising interest rates lead to increased financing costs including the costs of bank guarantees.

Frequentis could be adversely affected by 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 Frequentis Group could face new risks not evaluated in advance.

Frequentis could be adversely affected by not successfully dealing with the challenges of (organic) growth and Frequentis' organisational units may have excess capacities or capacity shortages
Frequentis' ability to achieve and to deal with further (organic) growth will depend, among others, on further improving its products, developing new products and services, controlling costs, maintaining effective quality assurance systems, marketing present and future products and services, securing an appropriate level of expert resources and adapting the internal management, technology and finance systems and processes to the expected growth. Depending on the development of market and customer segments, Frequentis may have excess capacities or capacity shortages.

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 bear several specific risks. It should be noted that, in particular, (i) competition is typically very intense in tender procedures, (ii) such procedures require considerable personnel and financial resources over a considerable period of time, (iii) public tenders sometimes contain significantly disadvantageous contract terms that are often not individually negotiable, (iv) public and semi-public organisations (which dominate Frequentis' customer structure) may prefer suppliers from certain other countries over Frequentis for reasons of protectionism or political influence, and (v) a tender awarded to Frequentis may be challenged by unsuccessful competitors.

Frequentis could be adversely affected by any failure to successfully protect its technology and proprietary know-how or to defend its intellectual property
The protection of the Frequentis Group's intellectual property by way of patent and trademark registrations, non-disclosure agreements etc. might be insufficient; possible industrial espionage against the Frequentis Group and the unauthorised disclosure or misappropriation of trade secrets cannot be ruled out. The laws of certain countries do not protect intellectual property rights to the same extent as the laws of Austria. The maintenance of patent protection is cost-prohibitive.

Minimum domestic content requirements could adversely affect the Group
Some countries, e.g. the U.S. (Buy American Act) and Australia (Australian Industry Involvement Program) prescribe minimum domestic content 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 cost level and the capacity situation within the Frequentis Group and any underemployed capacity resulting from that.

Frequentis could be adversely affected by faulty performance under its contracts (also if acting as subcontractor), which can include complete non-fulfilment, less fulfilment, or bad fulfilment in terms of quality, time, or budget
Frequentis Group is often required to contractually agree in its contracts to specific performance and time clauses (deadlines), also if acting as subcontractor; default under these clauses could lead to substantial penalty payments, purchase/service price reductions, the liability to effect changes in the supplied services, the assertion of consequential damage, and/or contract termination. Additionally, to these risks, acting as a subcontractor includes the risk of a payment default due to a bad financial situation of the main contractor, which may lead to losses for the Group.

The Group could be adversely affected by a faulty performance by its subcontractors
In an increasing number of situations, if the Frequentis Group assumes the position of the main contractor and/or system integrator, it also assumes responsibility for third party suppliers, which involves additional risks: If a subcontractor provides certain components which have to be integrated by the prime contractor into a complete solution, the latter faces technological and financial integration risks. It might not be possible to conclude the subcontract on terms and conditions materially equivalent to those contained in the main contract with the customer. If a subcontractor does not meet its contractual performance obligations, the Frequentis Group might face damage or penalty claims (which might not be recoverable from the defaulting or not performing subcontractor) or be compelled to re-assign the outstanding performance to a third party or to provide the remaining performance itself.

Damage to assets of customers during on-site works
Employees of the Frequentis Group or of a subcontractor of the Frequentis Group working at the facilities of a customer might cause damage to the assets of the customer, which could lead to claims for damages and have an adverse effect on the business, financial condition, and results of operations of Frequentis Group.

Compliance-related risks

Frequentis' management is not currently aware of material non-compliance of a Frequentis Group entity with applicable laws. However, given the constantly increasing complexity of the legal framework and the global activities of the Frequentis Group (i.e. in a multitude of jurisdictions), it cannot be excluded that a Frequentis Group entity, or a third party acting on behalf of, or otherwise attributable to, the Frequentis Group may be in breach of or non-compliance with certain laws, regulations, or governmental orders. Furthermore, many of the jurisdictions in which the Frequentis Group does business, including the United States, United Kingdom, Germany, and other member states of the European Union, issue regulations requiring that the Frequentis Group refrains from doing business, or allowing its clients to do business through the Frequentis Group, in certain countries or with certain organisations or individuals on a prohibited list maintained by such governments. The Frequentis Group may also be held liable for the actions taken by its local, strategic, or joint venture partners outside of Europe.

The Group's business activity could be adversely affected by changes in the legal and political framework or in the application or interpretation of laws, especially in regulatory, commercial, financial and tax law

Frequentis is active in numerous international markets. Typical risks involved include different economic situations and circumstances, many different jurisdictions and legal/tax systems, differing statutory regulations, currency fluctuations, achieving import/export licenses, customs, the worldwide transport of products, systems and equipment, and the necessary work on site. In addition, enforceability, stability, and reliability of the legal systems in the local jurisdictions may differ from country to country.

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 take the IFRS into account. Every year, they receive any necessary information on Group-wide reporting requirements before the annual financial statements are prepared. Local financial reporting data are checked manually by Corporate Accounting (mainly plausibility checks) and also undergo automatic, tool-based checking routines. During this process, Accounting works closely with other departments, especially Controlling (e.g. in respect of target/actual comparisons).

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 accounting function is a staff department reporting to the CFO. The annual audit schedule is determined by the Supervisory Board's Audit Committee on the basis of a proposal by the internal audit function. 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. Audits are conducted locally and at headquarters. The results of audits are presented once a year to the Audit Committee.

Information pursuant to Section 243a (1) UGB[1)]

1. The share capital of Frequentis AG was EUR 13,200,000.00 as at 31 December 2019 and was divided into 13,199,999 no-par 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 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).

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. There is an agreement between Frequentis Group Holding GmbH and B&C Innovation Investments GmbH ("BCII") on the election of a person nominated by BCII to the Supervisory Board of Frequentis AG.

3. As at 31 December 2019, Frequentis Group Holding GmbH had a direct stake of over 50.00% in Frequentis AG and was thus the direct majority shareholder of Frequentis AG. B&C Innovation Investments GmbH held a 10.00% stake in Frequentis AG as at 31 December 2019.

4. As at 31 December 2019, the owner of share no. 1 was 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.

[1] The numbering in this section refers to the subsections in Section 243a (1) UGB.

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 the authorised and/or conditional capital set out in article 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 4,800,000 (four million eight hundred thousand) by issuing up to 4,800,000 (four million eight hundred 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. There is currently no share purchase programme and the company does not have any treasury shares.

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

Frequentis continued to grow profitably in 2019 and the IPO was a milestone in the ongoing development of the company. At the same time, the long-term growth strategy was implemented consistently in many areas. For example, with its digital (remote) tower technology and in the area of drones, the company has successfully made new technology usable and acquired the first relevant orders.

Frequentis' expertise in integrating drones into airspace is shown, for instance, by the order from the Norwegian air navigation service provider and the company's involvement in AIRlabs Austria. Frequentis' digital (remote) tower solutions are already in regular use or currently being installed at 8 locations on 4 continents. These successes confirm our research & development strategy and Frequentis' strong role as an innovation leader.

The extension of the global sales network was also a step in this direction. In particular, the development of the US business was above average in 2019. The branch opened in Abu Dhabi in 2018 resulted in more orders from Arab countries. In the future as well, Frequentis intends to use its position as a global specialist to differentiate itself from local niche suppliers and international groups. In 2020, the company's internationalisation strategy will place a special focus on the Public Safety & Transport segment and on the Defence business domain, which is part of the Air Traffic Management segment.

The installed base remains both the guarantor of Frequentis' stability and its most important growth driver. More than 40% of revenues come from follow-on orders relating to installed systems and solutions. About half of the installed base business comprised maintenance contracts. As a rule, higher margins are earned on revenues generated from maintenance and add-on orders. The remainder of revenues is split between new products and projects with established customers, established products sold to new customers, and, to a small extent, consulting.

Frequentis will be continuing this basic long-term strategic focus in 2020. For example, the Danish air navigation service provider Naviair will be taking a multi-remote tower centre with Frequentis technology into service at Billund Airport in 2022. Norway is implementing the first unmanned traffic management system in Scandinavia in collaboration with Frequentis.

Capital expenditure (capex) of about EUR 5 million is planned for 2020. The expenses for in-house research & development activities, in other words R&D that is not based on customer orders, should be around the same level as in 2019 (EUR 22 million). To ensure applications are fit for purpose from the outset, business planning is performed for all research and development activities at an early stage.

Another milestone this year is the acquisition of a majority stake in ATRiCS, a software producer based in Freiburg, Germany, that offers airport-specific software solutions for runway taxi operations management as well as related consultancy services for airports and air traffic control organisations. In March 2020, Frequentis acquired 51% of this owner-run business, which was established in 2002. ATRiCS will be consolidated by the Frequentis Group at the start of April. This is Frequentis' first acquisition since the IPO and the aim is to diversify the product portfolio.

The acquisition therefore fits the company's M&A strategy of expanding its portfolio of products and services by acquiring smaller companies with revenues of less than 10% of the annual revenues of the Frequentis Group. Frequentis regularly monitors the market on the basis of these criteria and maintains contact with other market participants so that it can respond quickly when interesting opportunities arise.

The record order level of EUR 391.5 million as at 31 December 2019 (+10.2% compared with 31 December 2018) is expected to generate revenues of about EUR 215.5 million in 2020, with the remainder being realised in 2021 and subsequent years.

Following a positive start to 2020 with a further increase in order intake, Frequentis' aim is to raise revenues and order intake further in 2020. That said, the coronavirus epidemic entails risks for the current year. At present, it is not possible to make a reliable estimate of the impact on global growth, project acceptance, the supply chain, the budgets available, and the potential postponement of investments – or the resulting effect on revenues and order intake.

Vienna, 13 March 2020

Consolidated Financial Statements 2019

as at 31 December 2019

Consolidated income statement

	Note	2019 EUR thousand	2018 EUR thousand
Revenues	(3) (4)	303,631	285,764
Change in inventories of finished goods and work in progress	(3)	9	679
Own work capitalised	(3) (5)	372	20
Other operating income	(3) (6)	6,243	7,421
Total income (operating performance)		**310,255**	**293,884**
Cost of materials and purchased services	(7)	-81,597	-76,814
Personnel expenses	(8)	-154,810	-142,946
Other operating expenses	(9)	-43,669	-52,533
Earnings before interest, taxes, depreciation, and amortisation (EBITDA)		**30,179**	**21,591**
Depreciation and amortisation	(10)	-12,962	-5,988
Earnings before interest and taxes (EBIT)	**(3)**	**17,217**	**15,603**
Financial income	(11)	440	503
Financial expenses	(11)	-819	-429
Other financial results	(11)	-2	-8
Financial result		**- 381**	**66**
Earnings from investments accounted for at equity	(17)	148	243
Profit before tax		**16,984**	**15,912**
Income taxes	(12)	-4,462	-4,081
Profit for the financial year		**12,522**	**11,831**
Profit attributable to:			
Equity holders of the company		**11,818**	**11,265**
Non-controlling interests	(29)	**704**	**566**
		12,522	**11,831**
Basic earnings per share	(13)	**0.93**	**0.94**
Diluted earnings per share	(13)	**0.93**	**0.94**

The comparative figures for 2018 have not been restated due to the application of the modified retrospective method for IFRS 16.

Consolidated statement of comprehensive income

	Note	2019 EUR thousand	2018 EUR thousand
Profit for the financial year		**12,522**	**11,831**
Items that may be reclassified to the income statement in subsequent periods			
Foreign currency translation	(27)	302	71
Realised gains/losses from foreign currency translation	(27)	-17	0
Measurement of cash flow hedges	(27) (40)	-860	-245
Taxes on items that may be reclassified to the income statement	(27)	215	61
Items that may not be reclassified to the income statement			
Remeasurement gains/losses from post-employment benefits	(27) (31) (32)	-1,480	-663
Investments accounted for at equity – amounts recognised in other comprehensive income	(27)	-2	-0
Taxes on items that may not be reclassified to the income statement	(27)	370	166
Other comprehensive income, net of tax		**-1,472**	**-610**
Total comprehensive income		**11,050**	**11,221**
Total comprehensive income attributable to:			
Equity holders of the company		**10,362**	**10,655**
Non-controlling interests		**688**	**566**
		11,050	**11,221**

The comparative figures for 2018 have not been restated due to the application of the modified retrospective method for IFRS 16.

Consolidated statement of financial position

ASSETS	Note	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Non-current assets			
Property, plant and equipment	(14)	48,244	9,131
Intangible assets	(15)	7,572	6,499
Goodwill	(16)	2,228	2,228
Investments accounted for at equity	(17)	733	665
Equity instruments	(18)	874	576
Other non-current assets		189	193
Time deposits	(19)	9,997	7,998
Deferred tax assets	(12)	1,705	1,497
		71,542	**28,787**
Current assets			
Inventories	(20)	13,805	13,114
Trade accounts receivable	(21)	58,527	44,366
Contract assets from contracts with customers	(22)	38,354	40,850
Contract costs	(23)	2,549	1,697
Receivables from affiliated and associated companies	(24)	23	31
Other current assets	(25)	8,029	10,283
Income tax receivables		4,432	3,293
Time deposits	(19)	7,998	9,997
Cash and cash equivalents	(19)	66,882	45,543
		200,599	**169,174**
Total assets		**272,141**	**197,961**

The comparative figures for 2018 have not been restated due to application of the modified retrospective method for IFRS 16.

LIABILITIES AND EQUITY	Note	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Shareholders' equity			
Share capital	(26)	13,200	12,000
Capital reserves	(27)	19,976	245
Retained earnings	(27) (28)	81,691	72,582
Adjustments for foreign currency translation		-249	-534
Equity attributable to equity holders of the parent company		**114,618**	**84,293**
Non-controlling interests	(29)	1,568	1,340
Total shareholders' equity		**116,186**	**85,633**
Non-current liabilities			
Liabilities to banks and other financial liabilities		5,500	6,500
Provisions	(30)-(34)	16,066	14,191
Lease liabilities	(41)	32,788	0
Other liabilities	(37)	663	3,493
Deferred tax liabilities	(12)	3,840	3,964
		58,857	**28,148**
Current liabilities			
Liabilities to banks and other financial liabilities		1,609	1,651
Contract liabilities from contracts with customers	(35)	48,682	48,623
Trade accounts payable		13,468	13,775
Payables to affiliated and associated companies	(36)	182	226
Lease liabilities	(41)	7,289	0
Other liabilities	(37)	11,178	8,822
Current tax liabilities		1,151	1,150
Provisions	(38)	13,539	9,933
		97,098	**84,180**
Total shareholders' equity and liabilities		**272,141**	**197,961**

The comparative figures for 2018 have not been restated due to application of the modified retrospective method for IFRS 16.

Consolidated cash flow statement

	Note	2019 EUR thousand	2018 EUR thousand
Profit before tax		16,984	15,912
Net interest income/expense		378	-65
Foreign currency translation		-33	152
Profit/loss from the disposal of non-current assets		18	6
Depreciation of property, plant and equipment and amortisation of intangible assets	(2) (14) (15)	12,962	5,988
Earnings of investments accounted for at equity	(17)	-148	-244
Change in provisions	(30)-(34) (38)	4,001	-5,553
Other non-cash income/expenses		65	5
Net cash flow from operations		**34,227**	**16,201**
Change in inventories	(20)	-690	-2,881
Change in trade accounts receivable and receivables from affiliated and associated companies	(21)	-14,154	-5,371
Change in contract assets	(22)	1,644	-9,073
Change in other receivables	(25)	2,463	636
Change in trade accounts payable and payables to affiliated and associated companies	(36)	-2,048	3,096
Change in contract liabilities	(35)	59	9,155
Change in other liabilities	(37)	1,895	-3,214
Change in net working capital		**-10,831**	**-7,652**
Interest paid		-799	-429
Interest received		235	205
Dividends received		104	172
Income taxes paid	(12)	-5,208	-3,938
Net cash flow from operating activities		**17,728**	**4,559**
Cash inflows from the sale of intangible assets, property, plant and equipment		289	60
Cash inflows from the sale of securities and equity instruments		0	878
Cash outflows for the purchase of intangible assets, property, plant and equipment		-4,541	-4,808
Cash outflows for investment in securities, equity instruments, and time deposits		-294	-569
Cash outflows for the acquisition of associated companies		-27	0
Net cash flow from investing activities		**-4,573**	**-4,439**
Dividends paid to owners	(26)	-1,320	-14,400
Dividends paid to non-controlling interests		-540	-530
Cash inflows from capital increase in connection with the IPO	(26)	21,600	0
Cash outflows for transaction costs for the IPO	(26)	-892	0
Payments from non-controlling interests		79	10
Cash inflows from loans and other financing		82	13,717
Cash outflows for repayment of loans and other financing		-3,744	-13,020
Cash outflows for repayment of lease liabilities	(41)	-7,238	0
Net cash flow from financing activities		**8,027**	**-14,223**
Change in cash and cash equivalents			
Net cash flow from operating activities		17,728	4,559
Net cash flow from investing activities		-4,573	-4,439
Net cash flow from financing activities		8,027	-14,223
Net change in cash and cash equivalents		**21,182**	**-14,103**
Cash and cash equivalents at start of period		**45,543**	**77,734**
Cash-flow related change in cash and cash equivalents		21,182	-14,103
Non-cash related change in cash and cash equivalents		0	-18,000
Foreign currency translation		163	-84
Loss allowance		-6	-4
Cash and cash equivalents at end of period		**66,882**	**45,543**

The comparative figures for 2018 have not been restated due to application of the modified retrospective method for IFRS 16.

For further information on the consolidated cash flow statement, see Note 39.

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	Foreign currency translation	Equity attributable to equity holders of the parent company	Non-controlling interests	Total shareholders' equity
Note	(26)	(27)	(31) (32)	(28)	(40)	(27)			(29)	
As at 31 December 2018	12,000	245	-4,512	0	-30	77,124	-534	84,293	1,340	85,633
Changes in accounting policies (IFRS 16)						290		290	0	290
As at 1 January 2019	12,000	245	-4,512	0	-30	77,414	-534	84,583	1,340	85,923
Capital increase	1,200	20,400						21,600		21,600
Costs of the capital increase		-892						-892		- 892
Related income taxes		223						223		223
Payments from non-controlling interests									79	79
Profit for the financial year						11,817		11,817	705	12,522
Other comprehensive income	0	0	-1,096	0	-645	0	285	-1,456	-17	-1,473
Total comprehensive income	0	0	-1,096	0	-645	11,817	285	10,362	688	11,050
Dividends						-1,320		-1,320	-539	-1,859
Other changes				63				63	0	63
As at 31 December 2019	**13,200**	**19,976**	**-5,608**	**63**	**- 675**	**87,911**	**- 249**	**114,618**	**1,568**	**116,186**

in EUR thousand	Share capital	Capital reserves	IAS 19 reserve (net of tax)	IAS 39 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 shareholders' equity
Note	(26)	(27)	(31) (32)		(40)	(27)			(29)	
As at 31 December 2017	12,000	245	-4,015	143	0	81,073	-604	88,842	1,254	90,096
Changes in accounting policies (IFRS 9 and 15)				-143	154	-774		-763	0	- 763
As at 1 January 2018	12,000	245	-4,015	0	154	80,299	-604	88,079	1,254	89,333
Payments from non-controlling interests									10	10
Profit for the financial year						11,265		11,265	566	11,831
Other comprehensive income	0	0	-497	0	-184	0	70	- 611	-0	- 610
Total comprehensive income	0	0	-497	0	-184	11,265	70	10,654	566	11,221
Dividends						-14,400		-14,400	-530	-14,930
Increase(+)/decrease(-) in non-controlling interests						-40		-40	40	0
As at 31 December 2018	**12,000**	**245**	**-4,512**	**0**	**- 30**	**77,124**	**- 534**	**84,293**	**1,340**	**85,633**

Notes to the consolidated financial statements

1. General information

Reporting

The consolidated financial statements of Frequentis AG for the 2019 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 2019 have been applied.

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

Information on the company

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

Its parent company, Frequentis Group Holding GmbH (holds 60% of shares in Frequentis AG), also 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 2019.

The financial year is 1 January to 31 December.

In the reporting period, the Executive Board comprised:

- Norbert Haslacher, Chairman
- Sylvia Bardach
- Hermann Mattanovich

In the reporting period, the Supervisory Board comprised:

- Johannes Bardach, Chairman
- Dr. Karl Michael Millauer, Deputy Chairman
- Dr. Boris Nemsic, member
- Reinhold Daxecker, member
- Petra Preining, member from 20 September 2019
- Gabriele Schedl, member pursuant to Section 110 of the Austrian Labour Relations Act (ArbVG)
- Siegfried Meisel, member pursuant to Section 110 ArbVG from 1 January 2019
- Reinhard Steidl, member pursuant to Section 110 ArbVG from 20 September 2019

The consolidated financial statements were approved by the Executive Board on the date of signature, subject to the approval by the Supervisory Board at its meeting on 27 March 2020.

Consolidated group

Besides Frequentis AG, which is the parent company of the consolidated group, the consolidated financial statements of Frequentis AG include 5 (2018: 5) domestic subsidiaries and 21 (2018: 22) 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.

Two foreign companies and two 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%)
- Team Communication Technology Management GmbH, Vienna (51%)

b) **Fully consolidated subsidiaries in Europe**
- 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 Romania S.R.L., Cluj-Napoca (100%)
- Frequentis Slovakia s.r.o., Bratislava (100%)
- Frequentis Solutions s.r.o., Bratislava (100%)
- Frequentis UK Ltd., Twickenham (100%)
- Secure Service Provision GmbH, Leipzig (80%)
- Systems Interface Ltd., Surrey (51%)

c) **Fully consolidated subsidiaries in the Americas**
- Frequentis California Inc., Monterey (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**
- 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%)

All information on the consolidated group relates to the circumstances as at 31 December 2019.

Changes to the consolidated group

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 the contract to the innovation laboratory AIRlabs Austria GmbH. This company was established in December 2019 and entered in the commercial register in January 2020. Frequentis AG has a stake of 18.0% in AIRlabs Austria GmbH. Although Frequentis AG only holds 18.0% of the shares, as a result of its representation on the management and voluntary supervisory Board and a shareholder agreement, it is able to exercise significant influence but not control.

The liquidation of Frequentis Saudi Arabia Ltd. was successfully completed in the reporting period.

These changes did not have a material impact on the Group's assets, financial position, and financial performance in the reporting period.

2. Accounting policies

The consolidated financial statements are prepared by applying the historical cost convention. Excluded from this principle are derivative financial instruments and equity instruments, 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 associated companies accounted for by applying the equity method of accounting compared to those applied by the Frequentis Group.

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

The consolidated financial statements of Frequentis AG are prepared in euros. 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. Investments in consolidated subsidiaries and the equity items that are eliminated on consolidation 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 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 December 2019	Closing rate 31 December 2018	Average rate 31 December 2019	Average rate 31 December 2018
AUD	Australian dollar	1.60	1.62	1.61	1.58
BRL	Brazilian real	4.52	4.44	4.42	4.33
CAD	Canadian dollar	1.46	1.56	1.48	1.53
CNY	Chinese renminbi yuan	7.82	7.88	7.72	7.82
CZK	Czech koruna	25.41	25.72	25.66	25.68
GBP	British pound	0.85	0.89	0.88	0.89
NOK	Norwegian krone	9.86	9.95	9.84	9.63
SGD	Singapore dollar	1.51	1.56	1.53	1.59
RON	Romanian leu	4.78	4.66	4.75	4.66
USD	US dollar	1.12	1.15	1.12	1.18

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 2019 and were effective at that date:

- IFRS 16 "Leases"
- IFRIC 23 "Uncertainty over Income Tax Treatments"
- Prepayment Features with Negative Compensation (Amendments to IFRS 9)
- Annual Improvements to IFRS Standards (2015-2017 Cycle)
- Long-term Interests in Associates and Joint Ventures (Amendments to IAS 28)
- Plan Amendment, Curtailment or Settlement (Amendments to IAS 19)

Where applicable, the above standards and amendments were applied in full in these consolidated financial statements. The effects of these changes on the financial statements are outlined in more detail in the section "Changes in accounting policies".

In addition, as at 31 December 2019, some of the following new and amended standards had been endorsed by the EU, but were not mandatory for the 2019 financial year. Frequentis did not elect to 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 1 and IAS 8	Definition of Material (amendments)	29 Nov. 2019	2020	None
IFRS 3	Definition of Business (amendments)	Planned for 2020	2020	None
IFRS 17	Insurance Contracts	Open	2021	None
IFRS 9, IAS 39, IFRS 7	Interest-rate Benchmark Reform (amendments)	15 Jan. 2020	2020	None

Changes in accounting policies

The Frequentis Group initially applied IFRS 16 "Leases" as at 1 January 2019. This standard replaces the previous standard on leases, IAS 17, and the related interpretations. In addition, a number of other new standards had to be applied for the first time as at 1 January 2019, but these did not have a material impact on the consolidated financial statements.

Under IFRS 16, lessees recognise a right-of-use asset, corresponding to the present value of the future lease payments plus any direct costs incurred, and a lease liability for future payments in their statement of financial position. For lessors, the requirements of the new standard are similar to the provisions of the previous standard, IAS 17.

For initial application of IFRS 16 as at 1 January 2019 (date of initial application), the Group elected to use the modified retrospective method (without restatement of the comparative data for 2018). All right-of-use assets were recognised at the amount of the lease liability as at the date of initial application after adjustment for any prepaid or accrued lease payments.

The Group elected to apply the recognition exemptions for short-term leases and for leases for which the underlying asset is of low value. Furthermore, the original assessment of existing leases was maintained. In addition, the option to exclude intangible assets from the scope of IFRS 16 and the option to apply the exemption for short-term leases to leases expiring in 2019 were used.

For all leases previously classified as operating leases, where the Frequentis Group is the lessee, the right-of-use asset was measured using the lessee's incremental borrowing rate. This is derived from the risk-free interest rate for the underlying lease term, adjusted for the country, currency and company risk, and is between 0.0% and 2.27% in the euro zone and between 0.0% and 5.5% outside the euro zone.

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.

Non-lease components of a contract such as electricity, servicing, etc. are excluded from the calculation of the right-of-use asset.

IFRS 16 requires estimates that influence the measurement of both the right-of-use assets and the lease liabilities. These cover the lease term and the incremental borrowing rate applied to discount future payment obligations.

The accumulated effect as at the date of initial application, 1 January 2019, is as follows:

	31 December 2018 EUR thousand	Adjustments EUR thousand	1 January 2019 EUR thousand
ASSETS			
Non-current assets			
Property, plant and equipment	**9,131**	39,107	**48,238**
Deferred tax assets	**1,497**	-86	**1,411**
LIABILITIES AND EQUITY			
Shareholders' equity			
Retained earnings	**72,582**	290	**72,872**
Non-current liabilities			
Non-current lease liabilities	**0**	32,608	**32,608**
Other non-current liabilities	**3,493**	-403	**3,090**
Current liabilities			
Current lease liabilities	**0**	6,539	**6,539**
Other current liabilities	**8,822**	-11	**8,811**

As a result of the initial application of IFRS 16 as at 1 January 2019, shareholders' equity was increased by an accumulated amount of EUR 290 thousand. This effect results from the reduction in other non-current and current liabilities due to the linearisation of lease obligations.

As a result of the increase in assets and liabilities, the equity ratio decreased from 43.3% as at 31 December 2018 to 36.3% as at 1 January 2019.

In the income statement, initial application of this standard results in reclassification of lease expense, which was recognised in EBITDA until 2018, to depreciation and interest expense, which is recognised outside of EBITDA.

In the cash flow statement, cash outflows for operating leases were recognised in cash flows from operating activities until 2018. From 2019, these payments are divided into the payments of principal and interest. The payments on principal relating to the lease liabilities are recognised in the cash flow from financing activities, while the interest payments are recognised in the cash flow from operating activities

As a lessee, the Frequentis Group leases assets such as real estate, vehicles and IT equipment. The right-of-use assets are recognised in property, plant and equipment where the underlying assets would have been recognised if they had been purchased.

The right-of-use assets recognised by Frequentis AG as at 1 January 2019 totalled EUR 27,377 thousand.

The reconciliation of the operating lease obligations as at 31 December 2018 to the lease liabilities as at 1 January 2019 is as follows:

in EUR thousand	
Operating lease obligations as at 31 December 2018	44,337
Short-term leases	-1,631
Leases for low-value assets	-38
Discounting using the lessee's incremental borrowing rate as at 1 January 2019	-1,532
VAT effect vehicle fleet	-129
Foreign currency translation	57
Reassessment of leases with extension or termination options	-1,917
Lease liabilities from initial application of IFRS 16 as at 1 January 2019	**39,147**
Finance lease liabilities as at 31 December 2018	0
Lease liabilities as at 1 January 2019	**39,147**

The Frequentis Group tested the right-of-use assets for impairment at the date of transition to IFRS 16 and came to the conclusion that there were no indications of impairment of right-of-use assets.

In addition to the changes due to IFRS 16, the presentation of non-current contract liabilities from contracts with customers and non-current trade accounts payable was adjusted. These balances are presented as current liabilities in the statement of financial position in accordance with IAS 1.68 because they are realised within the normal operating cycle; any long-term portion is disclosed in the notes.

	31 December 2018 EUR thousand	Adjustments EUR thousand	1 January 2019 EUR thousand
Non-current liabilities			
Contract liabilities from contracts with customers	1,072	-1,072	0
Trade accounts payable	748	-748	0
Current liabilities			
Contract liabilities from contracts with customers	47,551	1,072	48,623
Trade accounts payable	13,027	748	13,775

In addition, within equity there was a change in the presentation of reserves.

Intangible assets, property, plant and equipment

Intangible assets, 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 overhead costs.

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

The carrying amounts of intangible assets, property, plant and equipment are tested for impairment as soon as there is an indication that the carrying amount could exceed the recoverable amount. In this case, the carrying amount is compared to the higher of the fair value less costs of disposal and the present value of the estimated future cash flows from use of the asset. 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 the reason for an impairment no longer exists, the impairment loss is reversed up to the carrying amount that would have been determined if no impairment loss had been recognised.

Goodwill

Goodwill, which results exclusively from business combinations, is not amortised. Instead, it is tested for impairment at least once a year. 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 addition, goodwill is tested for impairment if there is an indication of impairment.

Investments in associated companies

Associated companies are companies where the Group exercises significant influence over the 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 Frequentis AG's share of the profit or loss of the associated company.

Leases

The Frequentis Group has applied IFRS 16 using the modified retrospective method. Therefore, the comparative information has not been restated and is still presented in accordance with IAS 17. Details of accounting in accordance with IAS 17 are presented separately.

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

Accounting policy applied from 1 January 2019 (IFRS 16)

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. 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.

The right-of-use assets are depreciated 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

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 normally 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 the lease conditions and type of asset.

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 payments of penalties for terminating the lease, unless it is reasonably certain that the Frequentis Group will not exercise such termination options.

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. The Frequentis Group recognises the lease payments relating to such leases as expense on a straight-line basis over the term of the lease.

Policy applied until 31 December 2018 (IAS 17)

Leases that transferred substantially all the risks and rewards incidental to ownership of an asset were classified as finance leases. Since the Frequentis Group did not have any finance leases, no such leases were recognised.

Other leases were classified as operating leases and were not recognised in the statement of financial position.

Financial instruments

A financial asset or financial liability is initially measured at fair value plus transaction costs. Financial assets classified at fair value through profit or loss form an exception to this rule. 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 recognized at settlement date, while derivative financial assets are initially recognized at trade date. Gains and losses from the disposal of financial instruments are determined by comparing the carrying amount with the proceeds of the sale.

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

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

The classification is performed separately based on the type of instrument: 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 occurs.

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 2019 or 2018.

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 selected 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. At the date of initial recognition, the Group can irrevocably elect to designate financial assets at FVTPL, even though they meet the criteria for measurement at amortised cost or at FVOCI, if this avoids or significantly reduces an accounting mismatch.

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 expenses and foreign currency translation differences are recognised in profit or loss. 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.

At initial recognition and subsequently at each reporting date derivatives are measured at fair value. 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 the income statement (revenues, other operating income or other operating expenses) in the period in which the hedged item affects the income statement.

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 the income statement. The change in the fair value of the designated element (spot element) 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 efforts. 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 costs were determined to be the best available measure of 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 costs necessary to make a sale. The manufacturing cost is calculated using all direct costs incurred, fixed and variable production overheads. Borrowing costs are not recognized 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 expected total costs. 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. repairs) with a short lead time or performance period, orders for replacement parts or small parts, and the sale of standard products without customisation or extensive processing so that the product can be taken into service by the customer, revenue is recognised at a point in time. Revenue is recognised when control transferred to the customer or the performance obligation is completely satisfied.

The contract assets from contracts with customers do not contain significant financing components.

Certain costs such as the costs 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 transfer of control over 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 agreed share-based payment with 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 - 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 recognized 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 2019 or 2018.

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.

In accordance with IAS 12, deferred taxes are recognized in the IFRS financial statements for temporary differences between the carrying amounts of assets and liabilities and their tax base. Deferred taxes are 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 to the extent that, within an independent Group company, they relate to the same tax authority.

A deferred tax receivable is recognised for unused tax loss carryforwards to the extent that it is probable that future taxable profit will be available.

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 has made the following judgements:

a) The Frequentis Group holds less than 20% of the shares and voting rights of an associated company, but classifies its influence as significant as it is represented on the management of the associated company (Note 17).
b) When assessing the term of leases, especially real estate leases, it 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 acquisition or manufacturing cost and are 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 once a year. 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 16 for information on the assumptions and sensitivity analyses used in the goodwill impairment test.

c) Revenue is recognised over time according to the progress towards satisfaction of the performance obligation using the input-based method (cost-to-cost method). Invoicing of orders completed over time is based on estimated contract costs, 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 are 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 highest probable 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 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 can result in a change in the obligation recognised. The sensitivity of post-employment benefit obligations is outlined in notes 31 and 32.

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 credits 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 and therefore it cannot be precluded that in individual cases they may reach a different conclusion than the Frequentis Group. If changes in the assessment are probable, a corresponding provision is recorded.

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

	Air Traffic Management 2019 EUR thousand	Public Safety & Transport 2019 EUR thousand	Reconciliation/ consolidation 2019 EUR thousand	Total 2019 EUR thousand
Revenues	211,164	92,440	27	303,631
Change in inventories of finished goods and work in progress	14	-5	0	9
Own work capitalised	10	0	362	372
Other operating income	4,250	878	1,115	6,243
Total operating income (total operating performance)	**215,438**	**93,313**	**1,504**	**310,255**
EBIT	**10,414**	**6,958**	**-155**	**17,217**

	Air Traffic Management 2018 EUR thousand	Public Safety & Transport 2018 EUR thousand	Reconciliation/ consolidation 2018 EUR thousand	Total 2018 EUR thousand
Revenues	202,495	83,108	161	285,764
Change in inventories of finished goods and work in progress	441	238	0	679
Own work capitalised	5	0	15	20
Other operating income	4,852	1,381	1,188	7,421
Total operating income (total operating performance)	**207,793**	**84,727**	**1,364**	**293,884**
EBIT	**11,850**	**3,436**	**317**	**15,603**

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 2019 nor 2018 did the Frequentis Group generate more than 10% of its total revenues with any single customer.

In terms of revenue categories, 52% (2018: 51%) of the Group's revenues were generated principally with new products for established customers and existing products sold to new customers, 46% (2018: 46%) comprised IBB (installed base business, i.e. follow-on business for installed systems and solutions), and 2% (2018: 3%) came from other sources (mainly consulting). Around half of the installed base business comprised maintenance contracts.

The regional breakdown of orders received by end-users in 2019 was as follows: orders are still dominated by the established European market, which accounted for 63.8% (2018: 55.2%), ahead of the Americas (19.4%; 2018: 16.9%), Asia (11.6%; 2018: 11.2%), Australia/Pacific (3.7%; 2018: 16.4%) and Africa (1.5%; 2018: 0.3%).

Orders on hand as at 31 December 2019 totalled EUR 391,460 thousand (2018: EUR 355,220 thousand). The ATM segment accounted for EUR 233,779 thousand (2018: EUR 215,722 thousand) of this amount and the PST segment for EUR 157,681 thousand (2018: EUR 139,498 thousand).

Regional breakdown of non-current assets

	2019 EUR thousand	2018 EUR thousand
Austria	39,345	9,641
Europe (excluding Austria)	13,728	6,971
Americas	4,483	998
Australia	437	210
Asia	51	37
	58,044	**17,858**

Non-current assets comprise property, plant and equipment, intangible assets and goodwill. The increase in non-current assets is mainly due to the initial application of IFRS 16.

4. Revenues

The following comments apply for both operating 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).

Revenue is 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 from contracts with customers increased by EUR 755 thousand which is the net result of a large number of newly commenced projects 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. repairs) with a short lead time or performance period, and orders for replacement parts or small parts where the revenue is recognised at point in time. The revenues from these orders amounted to EUR 5,885 thousand in the reporting period (2018: EUR 1,020 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.

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

	2019 EUR thousand	2018 EUR thousand
New products and/or new customer business	157,565	146,926
IBB (installed base business)	138,678	130,303
Other revenues	7,388	8,535
	303,631	**285,764**

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

	2019 EUR thousand	2018 EUR thousand
Europe	184,157	170,165
Americas	56,303	50,111
Asia	39,879	35,312
Australia/Pacific	18,399	19,500
Africa	3,459	5,951
Small orders (not allocated)	1,434	4,725
	303,631	**285,764**

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

The expected revenues from performance obligations for orders on hand were approximately EUR 391.5 million (31 December 2018: EUR 355.2 million) and correspond to the orders on hand in the Frequentis Group at the reporting date. It is expected that revenue of approximately EUR 215.5 million will be recognised in 2020 and revenue of EUR 176.0 million will be recognised in 2021 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 2019 comprise EUR 372 thousand (2018: EUR 20 thousand) including, among other things, expenses for self-produced internal demonstration and test systems.

6. Other operating income

	2019 EUR thousand	2018 EUR thousand
Grants and subsidies for research and development costs	3,282	3,761
Income from a research premium	1,177	1,716
Exchange rate gains and currency differences	496	741
Gain from the sale of intangible assets, property, plant, and equipment	13	13
Miscellaneous other operating income	1,275	1,190
	6,243	**7,421**

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

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

7. Cost of materials and purchased services

	2019 EUR thousand	2018 EUR thousand
Cost of materials	40,403	35,166
Cost of purchased services	41,194	41,648
	81,597	**76,814**

The increase in the cost of materials from EUR 35,166 thousand in 2018 to EUR 40,403 thousand in 2019 was due to an increase in the material intensity of the projects invoiced.

8. Personnel expenses

	2019 EUR thousand	2018 EUR thousand
Salaries	122,474	112,213
Expenses for severance payments	1,845	2,149
Expenses for pensions	992	856
Social security contributions	26,151	24,627
Other voluntary social welfare expenses	3,348	3,101
	154,810	**142,946**

The headcount at the end of the reporting period was 1,850 (2018: 1,843). The average number of employees was 1,849 (2018: 1,763).

The increase in salaries was partly due to the increase of EUR 2,275 thousand in provisions for bonuses and variable salaries.

9. Other operating expenses

	2019 EUR thousand	2018 EUR thousand
Travel expenses	11,861	12,177
Legal and consulting expenses	5,522	5,650
External personnel	3,700	3,693
Advertising	2,824	2,737
Insurance expenses	2,561	2,205
Maintenance	1,834	1,938
Transport	1,236	1,306
Energy	1,167	1,040
Rental and operating expenses (buildings)	0	7,937
Operating expenses (buildings)	1,161	0
Short-term leases and leases for low-value assets	930	0
Telephone and communications expenses	1,157	1,118
Cleaning	1,065	1,020
Vehicles	940	1,572
Licences (terms of up to 1 year)	934	364
Exchange rate differences	857	462
Change in project provisions	827	3,383
Staff recruitment	760	847
Other taxes and levies	754	664
Claims for damages	663	796
Bank charges and bank guarantee fees	661	516
Loss allowances for receivables and contract assets	250	189
Losses from the disposal of intangible assets, property, plant, and equipment	32	16
Miscellaneous	1,973	2,903
	43,669	**52,533**

Operating expenses for buildings, and short-term leases and leases for low-value assets, which are presented separately for the reporting period, were included in the line item "rental and operating expenses (buildings)" in the previous year. They are presented separately for the reporting period as required by IFRS 16.

The reduction in vehicle expenses is due to the altered presentation of vehicle leases in accordance with IFRS 16. In the previous year, the lease expense for vehicles was included in vehicle expenses.

Since the Frequentis Group has applied IFRS 16 using the modified retrospective method, the prior-year figures have not been restated.

The project provisions mainly relate to three projects in Europe, one in America, and one in Australia, where the remaining project revenues do not cover the remaining project costs. These projects started in 2018 but execution has been delayed. As a result, there was a considerable addition to project provisions in 2018; these were not used the reporting period but a further amount was added to them.

The loss allowances contain EUR 224 thousand for receivables and EUR 26 thousand for contract assets. These are not presented separately in the income statement as the amount is insignificant.

10. Depreciation and amortisation

	2019 EUR thousand	2018 EUR thousand
Depreciation of property, plant and equipment and amortisation of intangible assets	12,545	5,588
Depreciation and amortisation of low-value assets	417	400
	12,962	**5,988**

EUR 7,093 thousand of the increase in depreciation of property, plant and equipment is due to the depreciation of right-of-use assets recognised in accordance with IFRS 16.

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 results

Financial income

	2019 EUR thousand	2018 EUR thousand
Interest and similar income	440	494
Income from securities (FVTPL)	0	9
	440	**503**

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

Financial expenses

	2019 EUR thousand	2018 EUR thousand
Interest and similar expenses	819	429
	819	**429**

EUR 438 thousand of the increase in interest is attributable IFRS 16. Interest expenses are recognised using the effective interest method.

Other financial results

	2019 EUR thousand	2018 EUR thousand
Increase in fair value of equity instruments (FVTPL)	4	3
Losses from the disposal of securities	0	-3
Impairment of time deposits and cash and cash equivalents pursuant to IFRS 9	-6	-9
Other	0	1
	- 2	**- 8**

12. Income taxes

	2019 EUR thousand	2018 EUR thousand
Current income taxes	4,125	2,218
Taxes relating to other periods	7	-56
Non-deductible withholding tax	148	97
Change in deferred tax assets/liabilities	182	1,822
	4,462	**4,081**

The tax reconciliation is as follows:

	2019 EUR thousand	Tax rate in %	2018 EUR thousand	Tax rate in %
Profit before tax	16,984		15,913	
Theoretical tax expense based on a tax rate of 25%	4,246	25%	3,978	25%
Tax additions	272		339	
Tax deductions	-322		-444	
Changes in tax rates	-34		0	
Differences in tax rates in foreign tax systems	145		167	
Taxes relating to other periods	7		-56	
Non-deductible withholding tax	148		97	
Actual total tax expense	**4,462**	**26%**	**4,081**	**25%**

The tax additions comprise non-tax-deductible expenses such as representational expenses. The tax deductions mainly comprise the research subsidy.

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

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

	Assets 2019 EUR thousand	Liabilities 2019 EUR thousand	Assets 2018 EUR thousand	Liabilities 2018 EUR thousand
Property, plant and equipment	164	-9,358	145	-380
Intangible assets	105	-128	112	-83
Goodwill	143		166	
Financial assets	65	-2	79	-1
Inventories	41	-14	32	
Contract assets from contracts with customers and contract costs	163	-5,220		-4,825
Trade accounts receivable and other assets	90	-1,383	51	-134
Cash and cash equivalents and time deposits	4		2	
Option reserve	16			
Provisions	2,767	-1,254	2,544	-671
Liabilities	9,491	-123	312	-10
Contract liabilities from contracts with customers	3,475	-1,300	973	-1,536
Deferred taxes on currency differences, debt consolidation	15	-20	16	-16
Tax loss carry-forwards	128		757	
Total	**16,667**	**-18,802**	**5,189**	**-7,656**
Netting	-14,962	14,962	-3,692	3,692
Deferred taxes	**1,705**	**-3,840**	**1,497**	**-3,964**

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 2,175 thousand (2018: EUR 2,042 thousand).

As at the reporting date, the Frequentis Group had loss carry-forwards totalling EUR 656 thousand (2018: EUR 2,884 thousand), for which deferred taxes were recognised.

The amount of tax-deductible impairments on equity instruments that is spread over seven years under Austrian tax law is EUR 140 thousand (2018: EUR 183 thousand). Deferred tax assets of EUR 35 thousand (2018: EUR 46 thousand) are recognised for this amount.

As at 31 December 2019, there were no material income tax uncertainties, so the initial application of IFRIC 23 with effect from 1 January 2019 had no impact.

13. 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 12,772,603 (2018: 12,000,000).

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 shares issued in the reporting period, adjusted in each case by the dilutive effect of the share-based payment of 10,368 shares, which was granted for the first time in the 2019 financial year. The average weighted number of shares and options was 12,775,244 (2018: 12,000,000).

Notes to the consolidated statement of financial position

14. Property, plant and equipment

in EUR thousand	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 December 2017	**2,333**	**479**	**5,519**	**368**	**8,699**
Foreign currency translation difference	3		-8	8	3
Reclassification of advances	162	152	62	-376	0
Additions from business combinations	0	0	0	0	0
Addition	542	131	3,449	43	4,165
Disposal	-3	0	-58	0	-61
Depreciation	-320	-183	-3,172	0	-3,675
Carrying amount as at 31 December 2018	**2,717**	**579**	**5,792**	**43**	**9,131**
Cost of acquisition/production	5,499	3,895	22,925	43	32,362
Accumulated depreciation	-2,782	-3,316	-17,133	0	-23,231
Carrying amount as at 31 December 2018	**2,717**	**579**	**5,792**	**43**	**9,131**
Carrying amount as at 31 December 2018	**2,717**	**579**	**5,792**	**43**	**9,131**
IFRS 16	**38,299**	**0**	**808**	**0**	**39,107**
Foreign currency translation difference	142	0	13	0	155
Reclassification of advances	0	0	43	-43	0
Additions from business combinations	0	0	0	0	0
Addition	6,914	55	3,791	86	10,846
Disposal	-237	-1	-59	0	-297
Depreciation	-6,955	-132	-3,611	0	-10,698
Carrying amount as at 31 December 2019	**40,880**	**501**	**6,777**	**86**	**48,244**
Cost of acquisition/production	50,297	3,913	25,976	86	80,272
Accumulated depreciation	-9,417	-3,412	-19,199	0	-32,028
Carrying amount as at 31 December 2019	**40,880**	**501**	**6,777**	**86**	**48,244**

During 2019, the Frequentis Group concluded agreements for the purchase of property, plant and equipment totalling EUR 22 thousand, which will be delivered and invoiced in 2020.

For information on the recognised right-of-use assets resulting from the application of IFRS 16, see note 41.

15. Intangible assets

in EUR thousand	Software and licences	Advances	Total
Carrying amount as at 31 December 2017	**7,971**	**75**	**8,046**
Foreign currency translation difference	0	0	0
Reclassification of advances	0	0	0
Additions from business combinations	0	0	0
Addition	761	8	768
Disposal	-2	0	-2
Amortisation	-2,314	0	-2,314
Carrying amount as at 31 December 2018	**6,416**	**83**	**6,499**
Cost of acquisition/production	17,744	83	17,827
Accumulated amortisation	-11,328	0	-11,328
Carrying amount as at 31 December 2018	**6,416**	**83**	**6,499**
Carrying amount as at 31 December 2018	**6,416**	**83**	**6,499**
Foreign currency translation difference	0	0	0
Reclassification of advances	8	-8	0
Additions from business combinations	0	0	0
Addition	3,160	186	3,346
Disposal	-10	0	-10
Amortisation	-2,263	0	-2,263
Carrying amount as at 31 December 2019	**7,311**	**261**	**7,572**
Cost of acquisition/production	19,175	261	19,436
Accumulated amortisation	-11,864	0	-11,864
Carrying amount as at 31 December 2019	**7,311**	**261**	**7,572**

In the reporting period, Frequentis spent EUR 22.1 million (2018: EUR 19.4 million) on research and development work that was not ordered by customers. This was recognised in the income statement.

During 2019, the Frequentis Group concluded agreements for the purchase of intangible assets totalling EUR 520 thousand, which will be received and invoiced in 2020.

16. Goodwill

in EUR thousand	Goodwill
Carrying amount as at 31 December 2017	**2,228**
Foreign currency translation difference	0
Additions from business combinations	0
Additions	0
Disposal	0
Impairment losses	0
Carrying amount as at 31 December 2018	**2,228**
Cost of acquisition/production	2,228
Accumulated impairment losses	0
Carrying amount as at 31 December 2018	**2,228**
Carrying amount as at 31 December 2018	**2,228**
Foreign currency translation difference	0
Additions from business combinations	0
Additions	0
Disposal	0
Impairment losses	0
Carrying amount as at 31 December 2019	**2,228**
Cost of acquisition/production	2,228
Accumulated impairment losses	0
Carrying amount as at 31 December 2019	**2,228**

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

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Systems Interface Ltd.	1,266	1,266
Frequentis Comsoft GmbH	909	909
Team Communication Technology Management GmbH	53	53
	2,228	**2,228**

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 investment for all cash-generating units for the next three years. These are prepared annually as part of the group-wide budget planning process, taking the current business situation into account. For periods after the budget planning period, a long-term growth rate of 2% has been determined and was 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 2019	Systems Interface Ltd.	Frequentis Comsoft GmbH	Team Communication Technology Management GmbH
Interest rate (WACC after taxes)	9.27%	7.49%	7.90%
Recoverable amount in EUR thousand	4,670	47,471	10,956
Carrying amount of the CGU including goodwill in EUR thousand	4,287	7,910	518

Impairment test 2018	Systems Interface Ltd.	Frequentis Comsoft GmbH	Team Communication Technology Management GmbH
Interest rate 2019-2021	7.65%	7.22%	7.22%
Interest rate perpetual annuity	8.55%	8.12%	8.12%
Recoverable amount in EUR thousand	4,561	24,578	6,511
Carrying amount of the CGU including goodwill in EUR thousand	4,052	6,251	367

Since the present value of the forecast cash flows for the cash-generating units exceeds the goodwill allocated to them, no impairment losses had to be recognised in the reporting period.

In the sensitivity analyses for the groups of cash-generating units to which material goodwill is 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 Communication Technology GmbH that would result in impairment of goodwill.

For Systems Interface Ltd., the carrying amount would correspond to the recoverable amount if there was a reduction of 8.2% in cash flows or an increase of 0.6% in the discount rate.

17. Investments in associated companies

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Investments in associated companies	733	665

Name of associated company	Registered office	Voting rights and shareholding as at 31 Dec. 2019	Voting rights and shareholding as at 31 Dec. 2018
GroupEAD Europe S.L.	Madrid	28%	28%
Mission Embedded GmbH	Vienna	20%	20%
AIRNAV Technology Services Inc.	Iloilo	40%	40%
AIRlabs Austria GmbH	Graz	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 at AIRlabs Austria GmbH is there a block 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 2018 and the dividends already received for 2019):

		2019 EUR thousand	2018 EUR thousand
31 Dec. prior year	**Equity interest in GroupEAD Europe S.L.**	**491**	**491**
	Attributable profit in prior year	48	116
	Less dividend paid for the prior year	-48	-116
	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 2018):

GroupEAD Europe S.L.	31 Dec. 2018 EUR thousand	31 Dec. 2017 EUR thousand
Non-current assets	218	220
Current assets	2,678	3,076
Non-current liabilities	0	0
Current liabilities	970	1,130
Net assets (100%)	**1,926**	**2,166**
Frequentis Group’s share of net assets (28%)	539	607
Dividend paid in the following year	-48	-116
Carrying amount of the stake in the associated company	**491**	**491**
Revenues	7,211	7,012
Profit from the continuing operations (100%)	373	651
Other comprehensive income (100%)	0	0
Total comprehensive income (100%)	**373**	**651**
Total comprehensive income (28%)	104	182
Earnings included in the prior year (28%)	-56	-66
Share of earnings for the following year included due to dividends received (28%)	56	56
Frequentis Group’s share of total comprehensive income	**104**	**172**

The Frequentis Group holds a 20% interest in **Mission Embedded GmbH**, Vienna. The development of this investment is presented below:

		2019 EUR thousand	2018 EUR thousand
31 Dec. prior year	**Equity investment in Mission Embedded GmbH**	**148**	**97**
	Attributable profit in the reporting period	32	51
	Actuarial losses in accordance with IAS 19	-2	0
31 Dec. reporting period	**Equity investment in Mission Embedded GmbH**	**178**	**148**

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 2019):

Mission Embedded GmbH	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Non-current assets	213	127
Current assets	1,555	1,446
Non-current liabilities	158	136
Current liabilities	718	698
Net assets (100%)	**892**	**739**
Frequentis Group’s share of net assets (20%)	178	148
Carrying amount of the stake in the associated company	**178**	**148**
Revenues	4,073	3,311
Profit from continuing operations (100%)	163	254
Other comprehensive income (100%)	-10	-15
Total comprehensive income (100%)	**153**	**239**
Frequentis Group's share of the profit from continuing operations (20%)	32	51
Frequentis Group’s share of other comprehensive income (20%)	-2	-3
Frequentis Group’s share of total comprehensive income (20%)	**30**	**48**

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:

		2019 EUR thousand	2018 EUR thousand
31 Dec. prior year	**Equity interest in AIRNAV Technology Services Inc.**	**26**	**4**
	Goodwill due to capital increase	0	1
	Attributable profit in the reporting period	11	21
31 Dec. reporting period	**Equity investment in AIRNAV Technology Services Inc.**	**37**	**26**

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).

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 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. The purpose of this company is to build and operate testing areas and test infrastructure for drones in Austria, including the related research, development and registration.

The Group has classified its influence as significant, despite the 18% shareholding, due to the significant level of management involvement in the associate.

The table shows the development of this investment:

		EUR thousand
December 2019	Pro rata contribution to share capital	27
31 Dec. 2019	**Investment in AIRlabs Austria GmbH**	**27**

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. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Non-current assets	32	20
Current assets	256	50
Liabilities	41	5
Net assets (100%)	**247**	**65**
Frequentis Group's share of net assets	**66**	**26**
Revenues	379	298
Profit for the period	27	53
Frequentis Group's share of profit for the period	11	21
Frequentis Group's share of other comprehensive income	0	0
Frequentis Group's share of total comprehensive income	**11**	**21**

A proportionate share of the profit for the year from associated companies of EUR 148 thousand (2018: EUR 244 thousand) was recognised. There were no unrecognised losses in the reporting period or the prior year.

18. Equity instruments

The equity instruments held in the reporting period were as follows:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Altitude Angel Ltd.	863	569
Viennasys Software Entwicklung GmbH	11	7
	874	**576**

In 2018, a 5.6% interest in the start-up company Altitude Angel Ltd. in Reading, UK, was acquired. Based on the due diligence and valuation, a transaction price of EUR 569 thousand was determined for this investment. This also corresponded to its fair value as at 31 December 2018. In December 2019, there was a further financing round by all investors, with the same valuation of the company. In this context, the Frequentis Group paid a contribution of EUR 294 thousand, which increased its interest to 6.88%. The fair value as at 31 December 2019 was therefore EUR 863 thousand.

The equity instruments also include a 10.29% stake in Viennasys Software Entwicklung GmbH, which is based in Vienna. The calculation of the fair value as at 31 December 2019 showed that it had increased from EUR 7 thousand to EUR 11 thousand.

19. Time deposits, cash and cash equivalents

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Long-term time deposits	10,000	8,000
Loss allowance pursuant to IFRS 9	-3	-2
	9,997	**7,998**

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Short-term time deposits	8,000	10,000
Loss allowance pursuant to IFRS 9	-2	-3
	7,998	**9,997**

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Cash and cash equivalents	66,892	45,547
Loss allowance pursuant to IFRS 9	-10	-4
	66,882	**45,543**

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

The long-term time deposits expire at the latest at the end of 2021.

In accordance with IFRS 9, based on the expected credit loss (ECL) model, loss allowances were established at the date of recognition of the investment on the basis of the expected potential credit losses. Since no official rating was available for one bank, an expected credit loss of 0.03% was derived by comparing its key figures with those of similar banks for which an official rating was available. Further, an expected credit loss of 0.04% was calculated for another bank due to a poorer rating and higher balance as at 31 December 2019.

No impairment losses had to be recognised for the other bank balances due to good ratings and the short-term nature of the deposits (due daily).

20. Inventories

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Raw materials and supplies	6,672	7,568
Work in progress	804	1,083
Finished goods	1,990	1,689
Merchandise	3,120	2,171
Advance payments made	1,219	603
	13,805	**13,114**

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

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

Merchandise comprises tangible assets, mainly future components of customer projects.

The impairment loss on inventories was EUR 1,122 thousand in 2019 (2018: EUR 227 thousand). Reversals of EUR 6 thousand were made in 2019 (2018: EUR 0 thousand). The increase in the impairment losses is due to a reduction in long-term requirements.

21. Trade accounts receivable

	2019 EUR thousand	2018 EUR thousand
Trade accounts receivable, gross	59,188	45,221
Individual loss allowances	-438	-722
Loss allowance pursuant to IFRS 9	-223	-133
Trade accounts receivable, net	**58,527**	**44,366**

Trade accounts receivable contain non-current items totalling EUR 576 thousand (31 December 2018: EUR 0 thousand) that have to be recognised as current items pursuant to IAS 1.68.

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

Since most of the Frequentis Group's customers are 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 quotation 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 impairment charges. In the event of default, the receivables are derecognised.

The carrying amounts of financial assets represent the maximum credit risk.

The company's trade accounts receivable mainly relate to customers that are authorities and government-related organisations with high creditworthiness so the expected credit loss calculations did not result in any material change in the measurement of the loss allowance.

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

	2019 EUR thousand	2018 EUR thousand
As at 31 December of the previous year	**855**	**568**
Changes due to accounting policies (IFRS 9)	0	132
As at 31 December of the previous year	**855**	**700**
Change in impairments pursuant to IFRS 9	90	1
Additions	133	188
Utilisation	-294	0
Reversal	-123	-34
As at 31 December of the financial year	**661**	**855**

The maturity structure of trade accounts receivable as at 31 December 2019 was as follows:

	Weighted average loss rate	2019 EUR thousand	2018 EUR thousand
Trade accounts receivable, net		**58,527**	**44,366**
of which: neither overdue nor impaired	**0.05%**	**43,764**	**35,126**
of which, overdue but not impaired			
Up to 30 days	0.12%	8,883	6,097
30-60 days	0.72%	1,707	2,373
60-90 days	0.93%	482	418
90-180 days	1.48%	2,902	47
180-210 days	7.68%	13	42
> 210 days	16.66%	776	262

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 the turn of the year). Past experience shows that such delays in payment do not in themselves indicate a higher risk of default.

22. Contract assets from contracts with customers

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Contract assets from contracts with customers	54,924	54,169
Advances from customers	-16,570	-13,319
	38,354	**40,850**

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

The year-on-year increase in contract assets is the net result of a large number of newly commenced and invoiced projects

The contract assets of EUR 40,850 thousand recognised as at 1 January (2018: EUR 32,996 thousand) include EUR 31,773 thousand (2018: EUR 27,049 thousand) that were invoiced in the reporting period.

Based on expected project progress and contractual clauses, EUR 30,970 thousand (2018: EUR 37,658 thousand) of the total contract assets of EUR 38,354 thousand recognised as at 31 December 2019 (2018: EUR 40,850 thousand) are scheduled for invoicing in the following year. Contract assets with a carrying amount of EUR 7,384 thousand (2018: EUR 3,192 thousand) are not expected to be invoiced until after 2020.

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 26 thousand. The creditworthiness of customers is carefully checked, particularly in the case of orders for which the Group makes advance payments. These orders primarily relate to services for public authorities or major international companies.

Based on the sensitivity analysis, a change of +/-5% in the average profit contribution margin would alter contract assets by +/-EUR 3,019 thousand.

23. Contract costs

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

The development of capitalised contract costs is as follows:

	2019 EUR thousand	2018 EUR thousand
As at 1 January	**1,697**	**3,885**
Contract costs capitalised in the reporting period	2,718	1,957
Amortisation in the reporting period	-1,616	-4,145
Impairment losses	-250	0
As at 31 December	**2,549**	**1,697**

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

The impairment losses relate to loss-making projects. As a result, the related contract costs were impaired.

24. Receivables from affiliated and associated companies

This item contains trade accounts receivable from the following companies:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Frequentis Group Holding GmbH	15	22
GroupEAD Europe S.L.	1	4
Mission Embedded GmbH	7	5
of which current	23	31
of which non-current	0	0

25. Other current assets

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Prepaid expenses and deferred charges	3,879	3,807
Receivables from research grants and subsidies	2,185	2,711
Receivables from grants and subsidies	259	1,196
Receivables from fiscal authorities (excluding income taxes)	1,204	1,110
Interest receivables from time deposits	205	187
Positive fair value of cash flow hedges and MTM valuation	92	173
Other assets	205	1,099
	8,029	**10,283**

26. 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 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).

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.

Following the IPO, Johannes Bardach has a shareholding of approximately 68% (around 8% held directly and 60% held indirectly via Frequentis Group Holding GmbH), B&C Innovation Investments GmbH has a 10% shareholding, and the free float is 22%.

The issue price of the shares was EUR 18.00. Since they are no-par shares, an arithmetical amount of EUR 1,200 thousand of the total proceeds of EUR 21,600 thousand received by Frequentis AG was allocated to the share capital, and the remaining amount of EUR 20,400 thousand was allocated to the capital reserves.

The total cost of the IPO was EUR 2,322 thousand, of which EUR 892 thousand was allocated directly to equity after deduction of the related income taxes of EUR 223 thousand. These are the costs relating to the new shares due to the capital increase. Costs of EUR 859 thousand were charged to Mr. Johannes Bardach as they related to the sale of the existing shares. The resulting receivable has already been settled in full.

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

	2019	2018
As at 1 Jan.	**12,000,000**	**12,000,000**
Newly issued shares due to the capital increase	1,200,000	
As at 31 Dec.	**13,200,000**	**12,000,000**

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) No. 4 and Section 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.

In addition, at the Extraordinary General Meeting of Frequentis AG on 20 September 2019, the Executive Board was authorised, pursuant to Section 65 1b AktG, to dispose of or utilise own shares purchased, during 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, including in other ways than disposal via the stock exchange or a public offering, in particular

a) to grant own 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 programs, in particular stock options, long-term incentive plans and other stock ownership plans,
b) to deliver own 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 exercises in full or in part or in several tranches and for several purposes.

The change in 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 2019 is EUR 6,969 thousand (31 December 2018: EUR 3,123 thousand) and the distributable profit is EUR 47,341 thousand (31 December 2018: EUR 41,692 thousand).

At the Annual General Meeting on 14 May 2020, the Executive Board of Frequentis AG will propose a dividend of EUR 0.20 per share.

In 2019, the issued shares received a dividend distribution of EUR 1,320 thousand for 2018 (2018 for 2017: EUR 14,400 thousand). That corresponds to a dividend per share of EUR 0.10 in 2019 (2018: EUR 1.20 per share).

27. Reserves

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Capital reserves	19,976	245
IAS 19 reserve	-5,608	-4,512
Option reserve	63	0
Cash flow hedge reserve	-675	-30
Retained earnings	87,911	77,124
Retained earnings and other reserves	**81,691**	**72,582**

The capital reserves result from transactions with owners. For information on the change in 2019, see the explanation on the IPO in note 26: Share capital.

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

Item	Amount before income taxes 2019 EUR thousand	Income taxes 2019 EUR thousand	Amount after income taxes 2019 EUR thousand	Amount before income taxes 2018 EUR thousand	Income taxes 2018 EUR thousand	Amount after income taxes 2018 EUR thousand
Foreign currency translation	302	0	302	71	0	71
Realised gains/losses from foreign currency translation	-17	0	-17	0	0	0
Measurement of cash flow hedges	-860	215	-645	-245	61	-184
Remeasurement gains/losses from post-employment benefits	-1,480	370	-1,110	-663	166	-497
Investments accounted for at equity – amounts recognised in other comprehensive income	-2	0	-2	0	0	0
			-1,472			**- 610**

28. Share-based payment

Frequentis AG has agreed a long-term incentive programme (LTIP) with the chairman of the executive board, Mr. Norbert Haslacher.

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 agreement stipulates 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 this programme 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 LTIP 2019. In any case, the beneficiary may only sell the number of shares awarded under the LTIP 2019 or any subsequent long-term incentive plan if, at all times, he holds at least 7,000 of the shares awarded under the 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), assuming 100% target achievement, a maximum of 14,000 shares (gross – before deduction of taxes and fees), and at most 200% of the beneficiary's annual gross base salary for the 2019 financial year will be granted. Settlement is effected by transferring the corresponding number of shares of the net amount of the award to the respective securities account. Depending on the approval of the Supervisory Board, the settlement date is 30 April 2022.

The entitlement to the maximum allocation of 14,000 shares arises at a100% 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. The agreement with the Chairman of the Executive Board was signed on 30 September 2019. In order to qualify for the allocation of shares in the company, targets must be achieved. The achievement of each target will be measured over a three-year performance period. The agreed targets are based on the total shareholder return (TSR), organic growth of the operating performance, the EBIT margin and the profit margin, as well as the development of key accounts, employee satisfaction and customer satisfaction. Apart from the achievement of the targets, the Executive Board member does not have to provide any consideration for the shares awarded.

The following table summarises the main conditions for the share-based payment granted in the reporting period:

	LTIP 2019
Start of programme	1 Jan. 2019
Grant date	30 Sep. 2019
End of service period	31 Dec. 2021
Vesting date	30 Apr. 2022
Expected target achievement	74%
Expected no. of shares	10,368
Maximum no. of shares	14,000
Bonus shares allocated	None

Of the expected total future expense relating to the LTIP, the portion already earned as of 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 as at 30 September 2019 (share price on the date of the agreement), which was EUR 18.05, multiplied by the number of shares granted and the expected target achievement. EUR 63 thousand (EUR 67 thousand including payroll-related costs) was recognised in personnel expenses in the consolidated statement of comprehensive income.

For the present LTIP, it was assumed that both the market-oriented target 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 the target achievement and not in the fair value of the shares.

29. Non-controlling interests

The non-controlling interests relate to the following subsidiaries:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Team Communication Technology Management GmbH, Vienna	1,096	925
ELARA Leitstellentechnik GmbH, Aachen	168	57
Systems Interface Ltd., Surrey	-89	48
Secure Service Provision GmbH, Leipzig	322	300
Frequentis DFS Aerosense GmbH, Vienna	71	10
	1,568	**1,340**

Team Communication Technology Management GmbH distributed a proportionate dividend of EUR 441 thousand to non-controlling shareholders and Secure Service Provision GmbH distributed a proportionate dividend of EUR 98 thousand.

In the reporting period, two shareholder contributions totalling EUR 79 thousand were received by Frequentis DFS Aerosense GmbH from non-controlling interests.

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 2019	Non-current assets	Current assets	Non-current liabilities	Current liabilities	Net assets	Carrying amount of non-controlling interests
Team Communication Technology Management GmbH	142	3,689	209	1,386	2,236	1,096
ELARA Leitstellentechnik GmbH	352	312	124	198	342	168
Systems Interface Ltd.	188	2,332	565	2,116	-161	-89
Secure Service Provision GmbH	227	1,596	65	145	1,613	322
Frequentis DFS Aerosense GmbH	44	235	0	43	236	71
						1,568

Statement of financial position as at 31 December 2018	Non-current assets	Current assets	Non-current liabilities	Current liabilities	Net assets	Carrying amount of non-controlling interests
Team Communication Technology Management GmbH	80	2,935	144	983	1,888	925
ELARA Leitstellentechnik GmbH	195	127	0	206	116	57
Systems Interface Ltd.	47	2,597	448	2,075	121	48
Secure Service Provision GmbH	57	1,731	0	285	1,503	300
Frequentis DFS Aerosense GmbH	0	35	0	4	32	10
						1,340

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

	Amounts before intragroup elimination				**Earnings attributable to non-controlling interests**		
2019	Total income (operating per-formance)	Profit for the period	Other compre-hensive income	Total compre-hensive income	Profit for the period	Other compre-hensive income	Total compre-hensive income
Team Communication Technology Management GmbH	8,120	1,282	-34	1,248	628	-17	611
ELARA Leitstellentechnik GmbH	2,231	226	0	226	111	0	111
Systems Interface Ltd.	3,364	-280	0	-280	-137	0	-137
Secure Service Provision GmbH	2,990	603	0	603	121	0	121
Frequentis DFS Aerosense GmbH	3	-59	0	-59	-18	0	-18
Total					**705**	**- 17**	**688**

	Amounts before intragroup elimination				Earnings attributable to non-controlling interests		
2018	Total income (operating per-formance)	Profit for the period	Other compre-hensive income	Total compre-hensive income	Profit for the period	Other compre-hensive income	Total compre-hensive income
Team Communication Technology Management GmbH	6,469	906	-1	905	444	0	444
ELARA Leitstellentechnik GmbH	1,992	82	0	82	40	0	40
Systems Interface Ltd.	5,618	-121	0	-121	-59	0	-59
Secure Service Provision GmbH	3,152	713	0	713	142	0	142
Frequentis DFS Aerosense GmbH	0	-3	0	-3	-1	0	-1
Total					**566**	**0**	**566**

30. Non-current provisions

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Provisions for severance payments	14,475	12,869
Provisions for pensions	3,035	2,647
Less pension insurance scheme	-2,573	-2,434
	462	**213**
Provisions for anniversary bonuses	343	301
Other provisions	786	808
Total non-current provisions	**16,066**	**14,191**

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

31. Provisions for severance payments

This item 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 company.

The corresponding severance payments will result in outflows between 2020 and 2047.

Obligations for severance payments were measured using the following parameters:

	2019	2018
Interest rate	1.3%	2.0%
Wage and salary trend	3.0%	3.0%
Average term of the defined benefit obligation	12.1 years	12.2 years

The following table provides the reconciliation of the severance payment obligations at the beginning and end of the reporting period:

	2019 EUR thousand	2018 EUR thousand
Present value of severance payment obligations (DBO) as at 1 January = provisions as at 1 January	**12,869**	**11,989**
Current service cost (CSC)	629	600
Interest cost (IC)	252	219
Actual payments made	-491	-537
Recognised actuarial loss (+)/gain(-)	1,216	598
Present value of severance payment obligations (DBO) as at 31 December = provisions as at 31 December	**14,475**	**12,869**

The provisions for severance payments relate mainly to employees of the Austrian companies in the Frequentis Group before 31 December 2002 as a change in Austrian law led to switch from defined benefit to defined contribution severance payments on 1 January 2002. 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 Frequentis Group has no severance payment obligations for these employees. The expenses for this were EUR 875 thousand in the reporting period (2018: EUR 824 thousand).

Presentation of the recognised actuarial gains/losses for severance payment obligations:

	2019 EUR thousand	2018 EUR thousand
Changes in demographic assumptions	0	-69
Changes in financial assumptions	1,130	632
Other changes	86	35
Total	**1,216**	**598**

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

The following sensitivity analysis for severance payment obligations (amounts in EUR thousand) shows the effect of changes in the key actuarial assumptions, while the remaining assumptions remained unchanged.

Interest rate	Salary increases	DBO 31 Dec. 2019
1.3%	3.5%	15,340
1.15%	3.0%	14,734
1.3%	3.0%	14,475
1.45%	3.0%	14,222
1.3%	2.5%	13,669

Interest rate	Salary increases	DBO 31 Dec. 2018
2.0%	3.5%	13,651
1.85%	3.0%	13,101
2.0%	3.0%	12,869
2.15%	3.0%	12,642
2.0%	2.5%	12,141

32. Provisions for pensions

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

The plan assets comprise funded insurance which is pledged to the entitled beneficiaries.

The pension benefit obligations were measured using the following parameters:

	2019	2018
Interest rate	1.3%	2.0%
Retirement age	60/65 years	60/65 years
Average term of the defined benefit obligation	14.18 years	13.8 years

Development of pension provisions and plan assets:

	2019 EUR thousand	2018 EUR thousand
Present value of the defined benefit obligations (DBO) as at 1 January	2,647	5,019
Fair value of plan assets	-2,434	-4,372
+ Provisions/surplus plan assets as at 1 January	**213**	**647**
Present value of the defined benefit obligation (DBO) as at 1 January	2,647	5,019
Service cost	131	97
Interest cost	52	91
Pension payments	-89	-92
Transfer of pension benefit obligations to Frequentis Group Holding GmbH	0	-2,508
Recognised actuarial losses (+)/gains (-)	294	40
Present value of the defined benefit obligations (DBO) as at 31 December	**3,035**	**2,647**
Fair value of plan assets as at 1 January	2,434	4,372
Return on plan assets	49	80
Payments made	150	150
Payments received from plan assets	-89	-119
Transfer of plan assets to Frequentis Group Holding GmbH	0	-2,024
Recognised actuarial losses (-)/gains (+)	29	-25
Fair value of plan assets as at 31 December	**2,573**	**2,434**
Provisions as at 31 December		
Present value of the defined benefit obligation (DBO)	3,035	2,647
Fair value of plan assets	-2,573	-2,434
+ Provisions/surplus plan assets as at 31 December	**462**	**213**

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

	2019 EUR thousand	2018 EUR thousand
Changes in demographic assumptions	0	64
Changes in financial assumptions	276	-52
Other changes	18	28
Other changes to plan assets	-29	25
Total	**265**	**65**

For the Frequentis Group, the principal risks relating to pension obligations are the development life expectancy and the development of inflation, because the pension benefits comprise lifelong pension payments. The risk remaining at 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 pension benefit obligations (amounts in EUR thousand) shows the effect of changes in key actuarial assumptions, while the remaining assumptions remained unchanged.

Interest rate	DBO 31 Dec. 2019
1.15%	3,100
1.3%	3,035
1.45%	2,973

Interest rate	DBO 31 Dec. 2018
1.85%	2,701
2.0%	2,647
2.15%	2,594

33. Provisions for anniversary bonuses

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

Obligations for anniversary bonuses were measured using an interest rate of 1.3% (2.0%).

	2019 EUR thousand	2018 EUR thousand
Present value of the defined benefit anniversary bonus obligations (DBO) as at 1 January = Provisions as at 1 January	**301**	**301**
Current service cost (CSC)	34	35
Interest cost (IC)	6	5
Actual payments made	-17	-32
Recognised actuarial loss (+)/gain(-)	19	-8
Present value of the defined benefit anniversary bonus obligations (DBO) as at 31 December = Provisions as at 31 December	**343**	**301**

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

The following sensitivity analysis for anniversary bonus obligations (amounts in EUR thousand) shows the effect of changes in key actuarial assumptions, while the remaining assumptions remained unchanged.

Interest rate	DBO 31 Dec. 2019
1.15%	347
1.3%	343
1.45%	339

Interest rate	DBO 31 Dec. 2018
1.85%	305
2.0%	301
2.15%	298

34. Other non-current provisions

The other non-current provisions comprise:

	As at 31 Dec. 2018 EUR thousand	Foreign exchange difference EUR thousand	Interest EUR thousand	Used EUR thousand	Reversed EUR thousand	Added EUR thousand	As at 31 Dec. 2019 EUR thousand
Provisions for leave based on period of service	58	1	-4	0	0	29	84
Provisions for projects	731	0	-8	-54	0	0	669
Other	19	0	0	0	0	14	33
	808	**1**	**-12**	**- 54**	**0**	**43**	**786**

A long-term holiday provision is recognised for a foreign subsidiary for an additional holiday entitlement which is dependent on length of service.

The provisions for projects contain project costs for which provisions are recognised due to the excess of estimated future expenses over future revenue. It is not expected to be utilized within the next twelve months.

The interest on the service-related holiday provision is recognised in personnel expenses while the interest for the project provisions is recognised in interest expense.

35. Contract liabilities from contracts with customers

Contract liabilities from contracts with customers comprise obligations to transfer goods and services to customers, for which consideration has already been received. This primarily relates 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 date or during the year.

The following table shows the structure of contract liabilities from contracts with customers:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Advances for customer projects	44,728	39,695
Advances offset against contract assets from contracts with customers	-14,157	-11,896
	30,571	**27,799**
Other contract liabilities	5,461	9,858
Other contract liabilities offset against contract assets from contracts with customers	-2,413	-1,156
	3,048	**8,702**
Accrued revenue for maintenance contracts	10,867	5,695
Liabilities for outstanding performance obligations for customer orders after final invoicing (current)	3,408	5,355
Liabilities for outstanding performance obligations for customer orders after final invoicing (non-current)	788	1,072
Total contract liabilities from contracts with customers	**48,682**	**48,623**

Other contract liabilities contain contractual claims to advance payments.

EUR 3,347 thousand (2018: EUR 1,072 thousand) of the contract liabilities have a term of more than 12 months.

36. Payables to affiliated and associated companies

This item contains trade accounts payable to the following companies:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Frequentis Group Holding GmbH	3	3
Mission Embedded GmbH	64	106
Group EAD Europe S.L.	42	85
AIRNAV Technology Services Inc.	73	32
Total, current	**182**	**226**

37. Other liabilities

EUR 2,620 thousand of the reduction in other non-current liabilities results from early repayment of loans in connection with grants and subsidies for research and development.

The other current liabilities comprise:

	31 Dec. 2019 EUR thousand	31 Dec. 2018 EUR thousand
Provisions for holidays not yet taken	3,483	3,370
Negative fair values of cash flow hedges and MTM valuation	2,181	1,009
Liabilities to the Austrian fiscal authorities (excluding income taxes)	1,931	1,160
Advances received in connection with grants and subsidies	466	572
Provisions for overtime	435	328
Provisions for consultancy costs	370	458
Other liabilities	2,312	1,925
Total, current	**11,178**	**8,822**

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

38. Other current provisions

The other current provisions comprise:

	As at 31 Dec. 2018 EUR thousand	Foreign exchange difference EUR thousand	Utilisation EUR thousand	Reversal EUR thousand	Addition EUR thousand	As at 31 Dec. 2019 EUR thousand
Bonuses	5,411	29	-5,440	0	7,683	7,683
Provisions for projects	3,233	38	-3,271	0	4,150	4,150
Other	1,289	0	-1,204	-85	1,706	1,706
	9,933	**67**	**-9,915**	**- 85**	**13,539**	**13,539**

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 future revenue.
It is expected that the current provisions will result in actual outflows in the 2020 financial year.
On the basis of the sensitivity analysis, a change in excess costs of +/-10% would change the provisions for projects by +/- EUR 1,682 thousand.

Other information

39. 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 before tax. Taking into consideration changes in net working capital, this provides the cash flow from operating activities. Cash flows from forward exchange contracts are recognised in the cash flow from operating activities.

The increase in the cash flow from operating activities from EUR 4,559 thousand to EUR 17,728 thousand results, inter alia, from the change in the presentation of rental and lease payments due to the requirements of IFRS 16 (in 2018, these payments were presented in the cash flow from operating activities, while in the reporting period an amount of EUR 7,238 thousand is presented in the cash flow from financing activities). Interest payments on lease liabilities are recognised in the cash flow from operating activities.

Investing activities mainly comprise cash inflows from and outflows for intangible assets, property, plant and equipment, equity instruments, securities, and investments in associated companies.

Financing activities comprise dividend payments, cash outflows for repayment of loans and lease liabilities, and cash inflows from loans. In the previous year, the cash inflows and outflows for loans contained short-term cash advances of EUR 12,600 thousand; the average amount was EUR 1,575 thousand. There were no such cash advances in the reporting period.

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. 2019 EUR thousand	Change in accounting methods (IFRS 16) as at 1 Jan. 2019 EUR thousand	Exchange rate differences EUR thousand	Cash flow EUR thousand	Addition IFRS 16 EUR thousand	Re-classification of maturities EUR thousand	Carrying amount as at 31 Dec. 2019 EUR thousand
Non-current liabilities	9,120	0	0	-2,620	0	-1,000	5,500
Non-current lease liabilities	0	32,608	112	0	8,034	-7,966	32,788
Current liabilities	1,651	0	12	-1,054	0	1,000	1,609
Current lease liabilities	0	6,539	22	-7,238	0	7,966	7,289
Total liabilities for financing activities	**10,771**	**39,147**	**146**	**-10,912**	**8,034**	**0**	**47,186**

The cash and cash equivalents presented in the cash flow statement correspond to the line item “cash and cash equivalents” in the statement of financial position.

The cash and cash equivalents comprise cash on hand, cheques, bank deposits that are due daily, and fixed-term deposits with an original maturity of up to three months.

The non-cash change in cash and cash equivalents of EUR 18,000 thousand in the previous year resulted from a change in the purpose of some fixed-term deposits. As at 31 December 2017, these were still earmarked for operational liquidity management and mainly originated from advances for a major project. During 2018, it became clear that the cash outflows for the performance of this project were far lower than had originally been calculated (the marginal income from this project increased massively) and a significant portion of the advances received were therefore no longer required to cover operational processes and were therefore available for investment. Consequently, these fixed-term deposits were no longer contained in cash and cash equivalents as at 31 December 2018.

40. 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 due obligations in both normal and challenging 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 any necessary 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 managed 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.

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 2019 and 31 December 2018. Foreign currency amounts were translated in each case at the closing rate on the reporting date.

2019 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	7,109	1,684	4,142	1,511	7,337
Lease liabilities	40,077	7,555	23,169	10,160	40,884
Trade accounts payable	13,468	12,297	1,171	0	13,468
Payables to affiliated and associated companies	182	182	0	0	182
Other liabilities	1,822	1,158	664	0	1,822
Non-derivative liabilities	**62,658**	**22,876**	**29,146**	**11,671**	**63,693**
Financial derivatives	2,181	49,715	0	0	49,715
Derivative financial liabilities	2,181	49,715	0	0	49,715
TOTAL	**64,839**	**72,591**	**29,146**	**11,671**	**113,408**

2018 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	8,151	1,408	4,525	2,532	8,465
Trade accounts payable	13,775	13,027	748	0	13,775
Payables to affiliated and associated companies	226	226	0	0	226
Other liabilities	2,838	218	2,620	0	2,838
Non-derivative liabilities	**24,990**	**14,879**	**7,893**	**2,532**	**25,304**
Financial derivatives	1,009	34,425	0	0	34,425
Derivative financial liabilities	1,009	34,425	0	0	34,425
TOTAL	**25,999**	**49,304**	**7,893**	**2,532**	**59,729**

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, contract assets, other financial assets, time deposits and cash and cash equivalents.

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 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 loss model, see note 21 (Trade accounts receivable). The estimated loss allowances for cash and cash equivalents and time deposits 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 and time deposits.

Apart from investments and deposits totalling EUR 45,639 thousand at two banks, there is no material concentration or material credit risk in respect of individual banks, customers, contractual partners or individual financial instruments.

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.

Within financial assets, short-term and long-term time deposits bear fixed interest rates, so they are not exposed to any interest rate risk. The bank balances included in cash and cash equivalents amount to EUR 66,882 thousand and bear interest at variable rates or are not interest-bearing. From the present perspective, a reduction in interest rates would not result in negative interest, assuming that all agreed conditions remain unchanged. An increase in interest rates from 0% to 1% would increase interest income by EUR 669 thousand.

Within financial liabilities, non-current liabilities to banks and other non-current financial liabilities bear interest at fixed rates, while the interest rates for some (EUR 609 thousand) of the current liabilities to banks and other current financial liabilities are variable. Interest rates for all lease liabilities are fixed.

Since the interest rate risk insignificant, it is not presented in a 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, please 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).

2019	Measured at fair value			Measured at amortised cost		Carrying amount Total
	Hedge accounting	Mandatory recognition at fair value through profit or loss	Equity instruments – at fair value through profit or loss	Financial assets	Other financial liabilities	
Financial assets						
Equity instruments			874			874
Time deposits				17,995		17,995
Trade accounts receivable				58,527		58,527
Receivables from affiliated and associated companies				23		23
Financial derivatives	92					92
Other current and non-current assets				801		801
Cash and cash equivalents				66,882		66,882
Total	**92**		**874**	**144,228**		**145,194**
Financial liabilities						
Liabilities to banks and other financial liabilities					7,109	7,109
Trade accounts payable					13,468	13,468
Payables to affiliated and associated companies					182	182
Lease liabilities					40,077	40,077
Financial derivatives	1,764	417				2,181
Other liabilities					1,822	1,822
Total	**1,764**	**417**			**62,658**	**64,839**

2018	Measured at fair value			Measured at amortised cost		Total carrying amount
	Hedge accounting	Mandatory recognition at fair value through profit or loss	Equity instruments – at fair value through profit or loss	Financial assets	Other Financial liabilities	
Financial assets						
Equity instruments			576			576
Time deposits				17,995		17,995
Trade accounts receivable				44,366		44,366
Receivables from affiliated and associated companies				31		31
Financial derivatives	173					173
Other current and non-current assets				1,540		1,540
Cash and cash equivalents				45,543		45,543
Total	**173**		**576**	**109,475**		**110,224**
Financial liabilities						
Liabilities to banks and other financial liabilities					8,151	8,151
Trade accounts payable					13,775	13,775
Payables to affiliated and associated companies					226	226
Financial derivatives	844	165				1,009
Other liabilities					2,838	2,838
Total	**844**	**165**			**24,990**	**25,999**

Fair value

Trade accounts receivable, contract assets, other receivables, cash and cash equivalents, time deposits, 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 instruments, there are no quoted prices available on an active market. Therefore, they are measured using measurement parameters that are unobservable on the market. Measurement is based on the discounted cash flow method or any equity transactions around the reporting date. Their fair values are allocated to level 3 in the fair value hierarchy. There is currently no intention of selling the equity instruments.

Derivative financial assets and liabilities are carried at fair value. Derivatives that have not been designated as a hedging instrument nevertheless serve economically to hedge fluctuations in exchange rates. Their fair values are allocated to level 2 in the fair value hierarchy.

The long-term incentive programme (LTIP), which is classified as equity-settled share-based payment, was 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 1: Measurement based on quoted prices	Securities
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

The equity instruments measured at fair value include a 10.29% interest in the Austrian company Viennasys Software Entwicklung GmbH. The scope of this company's business activities is relatively small. For materiality reasons, measurement of the investment was based on the (pro rata) equity of the company.

For the 5.6% stake acquired in 2018 in the start-up company Altitude Angel Ltd., a further financing round by all investors was performed in December 2019 on the basis of the 2018 valuation as there were no indications of a material change in the value of the company since the initial investment. In this context, a payment of EUR 294 thousand was made and the equity interest was increased to 6.88%.

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):

2019	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				440	-819
Valuation	201	4		-6	
Impairment loss pursuant to IFRS 9				-90	
Currency gains/losses				405	-110
Disposal gains/losses		0			
Net gains/losses recognised in profit or loss	**201**	**4**	**0**	**749**	**-929**
Net gains/losses recognised in other comprehensive income	-860				
Net gains/losses	**-659**	**4**	**0**	**749**	**-929**

2018	Financial derivatives	Other financial instruments measured at fair value through profit or loss	Financial instruments measured at fair value through profit or loss	Financial assets measured at amortised cost	Financial liabilities measured at amortised cost
Net interest income/expense		8		494	-429
Valuation	-405	2		-9	
Impairment loss pursuant to IFRS 9				1	
Currency gains/losses				524	86
Disposal gains/losses		-3			
Net gains/losses recognised in profit or loss	**-405**	**7**	**0**	**1,010**	**-343**
Net gains/losses recognised in other comprehensive income	-245				
Net gains/losses	**-650**	**7**	**0**	**1,010**	**-343**

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 concluded 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, JPY, PLN, SGD and USD.

Forward exchange contracts were 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 risk 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 instrument (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 2020 and 2024.

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.

The carrying amount of financial derivatives corresponds to their current fair value, whereby the fair value was determined from the current market value as at 31 December 2019, verified by corresponding bank confirmations.

The following table shows the development of financial derivatives:

2019	Derivative		Cash flow hedge		For MTM valuation		Total
Sale currency	Sale amount	Purchase amount EUR thousand	Foreign currency amount	Fair value EUR thousand	Foreign currency amount	Fair value EUR thousand	Fair value EUR thousand
JPY	7,092	-55	0	0	7,092	3	3
SGD	427	-270	0	0	427	8	8
USD	-2,826	2,557	0	0	-2,826	81	81
		2,232		0		92	92
AUD	-4,749	2,901	-3,739	-18	-1,010	-9	-27
CAD	-54	35	-54	-1	0	0	-1
CHF	-1,413	1,294	-29	-1	-1,384	-10	-11
GBP	-16,264	18,208	-9,478	-648	-6,786	-28	-676
JPY	-14,184	110	0	0	-14,184	-6	-6
PLN	-16,058	3,552	-9,918	-128	-6,140	-14	-142
SGD	-7,178	4,555	0	0	-7,178	-112	-112
USD	-20,688	16,828	-11,169	-968	-9,518	-238	-1,206
		47,483		**-1,764**		**- 417**	**-2,181**

2018	Derivative		Cash flow hedge		For MTM valuation		Total
Sale currency	Sale amount	Purchase amount EUR thousand	Foreign currency amount	Fair value EUR thousand	Foreign currency amount	Fair value EUR thousand	Fair value EUR thousand
AUD	-2,880	1,783	-2,880	50	0	0	50
CAD	-297	195	-297	8	0	0	8
GBP	-7,983	8,880	-7,983	78	0	0	78
USD	-2,300	1,987	-2,300	37	0	0	37
		12,845		173		0	173
CHF	-504	445	-361	-3	-142	-2	-4
GBP	-2,730	2,974	-1,474	-36	-1,256	-16	-52
PLN	-12,398	2,753	-12,398	-70	0	0	-70
SGD	-1,747	1,092	-1,747	-6	0	0	-6
USD	-17,918	14,316	-16,553	-730	-1,365	-147	-877
		21,580		**- 845**		**- 165**	**-1,009**

For the carrying amount of the cash flow hedge and the carrying amount of the mark to market (MTM) valuation, a positive fair value of EUR 92 thousand was recognised in other receivables in 2019 (2018: EUR 173 thousand), while a negative fair value of EUR 2,181 thousand was recognised in other liabilities (2018: EUR 1,009 thousand). When the hedged item (revenue) is realised, the amount relating to the hedging instrument recognised in other comprehensive income is reclassified to revenues. The amount reclassified to revenues can be seen from the development of the cash flow hedge reserve presented in the table below.

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 price.

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.

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

	2019 EUR thousand	2018 EUR thousand
As at 31 December of the previous year	**-30**	**154**
Result from changes in fair value	-829	-136
Deferred taxes on this amount	207	34
Reclassification to the income statement	-31	-109
Deferred taxes on this amount	8	27
As at 31 December of the financial year	**-675**	**-30**

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 2,308 thousand and the fair value of the MTM valuation by EUR 2,401 thousand, while a 10% reduction in exchange rates would have reduced the fair value of the cash flow hedge by EUR 2,821 thousand and the fair value of the MTM valuation by EUR 2,935 thousand.

41. Leases

Leases as lessee

The Frequentis Group has concluded leases with some contractual partners. The leases have different lease terms and were classified as operating leases under IAS 17. In particular, leases are concluded for buildings, vehicles and IT equipment.

The leases for buildings are concluded either for a defined period or for an indefinite period with short termination periods for the lessee and lessor. Where the leases are for office premises for small companies, 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. An extension option was taken into consideration when assessing the term of this lease and a term until 2027 was assumed.

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

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

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

	Right-of-use assets for land and buildings EUR thousand	Right-of-use assets for other plant, factory and office equipment EUR thousand	Total EUR thousand
Acquisition cost			
As at 1 January 2019	**38,299**	**808**	**39,107**
Additions	6,573	1,249	7,822
Disposal	-226	0	- 226
Foreign currency translation	131	1	132
As at 31 December 2019	**44,777**	**2,058**	**46,835**
Accumulated depreciation			
As at 1 January 2019	**0**	**0**	**0**
Additions	-6,591	-502	-7,093
Disposal	56	0	56
As at 31 December 2019	**-6,535**	**- 502**	**-7,037**
Carrying amount			
As at 31 December 2019	**38,242**	**1,556**	**39,798**

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

The lease liabilities changed from EUR 39,147 thousand (comprising EUR 32,608 thousand long-term and EUR 6,539 thousand short-term) as at 1 January 2019 to EUR 40,077 thousand (comprising EUR 32,788 thousand long-term and EUR 7,289 thousand short-term) as at 31 December 2019.

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

	2019 EUR thousand	2018 EUR thousand
Depreciation of right-of-use assets	7,093	
Interest expense for lease obligations	438	
Lease payments for short-term leases	912	
Lease payments for low-value assets	18	
Rental and leasing expense	0	7,937
Total	**8,461**	**7,937**

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

	2019 EUR thousand
Repayment of lease liabilities	7,238
Interest paid on lease liabilities	438
Lease payments for short-term leases and low-value assets	930
	8,606

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 on principal of the lease liabilities are reported in the net cash flow from financing activities.

During 2019, the Frequentis Group concluded several leases that start in 2020. However, these are insignificant leases for vehicles and buildings.

Leases as lessor

With regard to leases where the Frequentis Group is the lessor, there was a reduction in lease revenue due to the termination of several leases. These revenues were EUR 73 thousand in the reporting period (2018: EUR 116 thousand) and will be EUR 49 thousand in 2020 and EUR 48 thousand in the following two years. These leases are classified as operating leases.

42. Information on business relations with related parties

Parent company

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

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

	2019 EUR thousand	2018 EUR thousand
Goods and services supplied and other income	90	71
Goods and services received and other expenses	507	335

Costs of EUR 859 thousand incurred in connection with the IPO were charged to Mr. Johannes Bardach as they related to the sale of existing shares. The corresponding receivable was settled in full in the reporting period.

Associated companies

The Frequentis Group maintains relationships with the 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:

	2019 EUR thousand	2018 EUR thousand
Goods and services supplied and other income	122	103
Goods and services received and other expenses	2,077	1,849

The receivables from/payables to affiliated and associated companies are presented separately in the statement of financial position.

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 undertaken with companies and persons classified as related parties:

	2019 EUR thousand	2018 EUR thousand
Expenses for consulting services	315	509
Expenses for project support services	335	266
Expenses for software development and engineering	650	486
Rental expenses		3,766
Rental payments (principal and interest)	3,773	
Revenues	211	362
Receivables as at December 31	62	56
Payables as at December 31	187	161

Austrian Research Promotion Agency (Österreichische Forschungsförderungsgesellschaft/FFG): Mr. Hannes 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, the Frequentis Group repaid grants and subsidies for research and development totalling EUR 2,620 thousand earlier than scheduled. In addition, advance payments for future research revenues in the amount of EUR 23 thousand (2018: EUR 5 thousand) were disbursed by FFG. The income from grants received from FFG in the reporting period totalled EUR 573 thousand (2018: EUR 720 thousand).

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

Related persons

Executive Board

In the reporting period, the Executive Board comprised:

- Norbert Haslacher, Chairman
- Sylvia Bardach
- Hermann Mattanovich

The total remuneration paid to the Executive Board of Frequentis AG amounted to EUR 1,423 thousand (excluding benefits in kind, including a one-off IPO bonus) (2018: EUR 2,731 thousand). The remuneration of the Executive Board comprises fixed and variable components. The variable components are performance-related and are based on the achievement of short-term financial targets for the company. In 2019, a one-off bonus was paid for the successful listing of Frequentis AG on the stock market.

In 2019, Frequentis AG agreed a long-term incentive programme (LTIP) with the Chairman of the Executive Board, Mr. Norbert Haslacher. This does not require any personal investment in Frequentis AG shares. From the date of allocation, a maximum of one third of the shares acquired under the LTIP 2019 may be sold in any financial year. In any case, the beneficiary may only sell the number of shares awarded under the LTIP 2019 or any subsequent long-term incentive plan if, at all times, he holds at least 7,000 of the shares awarded under the long-term incentive plan ("minimum shareholding"). An expense of EUR 63 thousand (EUR 67 thousand payroll-related costs) was recognised for this programme in the reporting period.

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 333 thousand were incurred in the reporting period (2018: EUR 339 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 131 thousand (2018: EUR 97 thousand), interest cost of EUR 52 thousand (2018: EUR 91 thousand), and pension insurance expense of EUR 150 thousand (2018: EUR 150 thousand).

In the event of termination of employment, severance payments are due in accordance with the legal regulations in Austria. Additions to the corresponding provisions for severance payments amounted to EUR 25 thousand in 2019 (2018: EUR 100 thousand).

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

Supervisory Board

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

The remuneration of the Supervisory Board amounted to EUR 103 thousand in the reporting period (2018: EUR 37 thousand).

An office and support services are provided free of charge for the Chairman of the Supervisory Board, Mr. Johannes Bardach, for the performance of his function as Chairman of the Supervisory Board.

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

43. Significant events after the reporting date

On 2 March 2020 the Executive Board of Frequentis AG passed a basic resolution – subject to the approval of the company's Supervisory Board – regarding the implementation of an employee participation programme in the 2020 financial year. For this purpose, it resolved on partial use of the authorised capital with complete exclusion of existing shareholders' subscription rights. Based on the authorisation of the General Meeting of 8 April 2019, the company's share capital would be increased by up to EUR 80,000, from the current level of EUR 13,200,000 to up to EUR 13,280,000 by the issue of up to 80,000 new shares for cash. The final amount of the capital increase will depend on the number of shares ordered by staff participating in the employee participation programme. Under the employee participation programme, eligible employees of the company and certain Austrian and German subsidiaries will be able to purchase new shares at a discount. Provided that the programme is approved by the company's Supervisory Board, the final volume of the capital increase is expected to be determined by the Executive Board (with the approval of the Supervisory Board) on 4 May 2020 on the basis of the demand by eligible employees.

Frequentis AG has acquired 51% of ATRiCS Advanced Traffic Solutions GmbH, which is based in Freiburg im Breisgau, Germany. ATRiCS was established in 2002 and is an owner-run company. It offers airport-specific software solutions for runway taxi operations management as well as consultancy services for airports and air traffic control organisations. The purchase agreement was signed on 5 March 2020 and closing will take place on 1 April 2020. ATRiCS will be fully consolidated by Frequentis from this date.

44. Additional information

The Frequentis Group had an average of 1,849 employees in 2019 (2018: 1,763 employees).

Audit fees

In the reporting period, audit expenses of EUR 120 thousand (2018: EUR 118 thousand) were incurred for the audit of the consolidated financial statements and the annual financial statements of Frequentis AG, expenses of EUR 70 thousand (2018: EUR 0 thousand) were incurred for other consulting services, and expenses of EUR 18 thousand (2018: EUR 31 thousand) were incurred for other services.

45. 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 bank deposits less financial liabilities to banks. The key performance indicators developed as follows in the reporting period:

	2019	2018
EBIT margin (based on revenues)	5.7%	5.5%
Equity ratio	42.7%	43.3%
Net cash in EUR thousand	77,768	55,386

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.

46. 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.

Business risks are outlined in more detail in the Group Management Report.

Vienna, 13 March 2020

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, 2019, 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, 2019 and its financial performance for the year then ended in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU with Austrian Generally Accepted Accounting Principles and other legal or regulatory requirements.

Basis for opinion

We conducted our audit 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 is sufficient and appropriate to provide a basis for our opinion.

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.

- Project Accounting

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. Due to the significant volume of the project business, the risk for the consolidated statements consist of a material misstatement of the project revenue, the related project costs as well as the corresponding balance sheet items.

Information on the accounting of the project business can be found in chapter 2 of the notes under the accounting policies "IFRS 15 Revenue from 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 22 "Contract assets from contracts with customers" and chapter 35 "Contract liabilities from contracts with customers".

Audit response:

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

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

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 Austrian Company code (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 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.

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.

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.

Additional information in accordance with article 10 of the EU regulation

We were elected as auditor by the ordinary general meeting at April 8, 2019. We were appointed by the Supervisory Board on October 29, 2019. We are auditors without cease since 2018.

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

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

We have not provided any services, in addition to the statutory audit, to the audited company and its controlled undertakings, which have not been disclosed in the Group's management report or in the consolidated financial statements.

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, 16 March 2020

BDO Austria GmbH

Wirtschaftsprüfungs- und Steuerberatungsgesellschaft

Mag. Gerhard Posautz Auditor	Mag. Gerhard Fremgen Auditor

Statement of 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, 13 March 2020

Norbert Haslacher
Chairman of the Executive Board

Sylvia Bardach

Hermann Mattanovich

Glossary

This glossary explains technical terms and abbreviations relating to Frequentis' business as well as financial terminology.

Glossary of technical terms relating to Frequentis' business

Term	Explanation
3020 LifeX	Product name for the multimedia collaboration platform in Frequentis' Public Safety business domain
AAR	Air-to-Air Refueling
AFTN	Aeronautical Fixed Telecommunication Network Fixed aeronautical telecommunications network; data network for the transmission of aeronautical data between local telecommunications stations
AIDA	Aeronautical Integrated Data Exchange Agent Solution for uniform and reliable handling of aviation messages
AIM	Aeronautical Information Management Aeronautical information services that provide pilots with all the information necessary for a flight
AMHS; MHS	(Aeronautical) Message Handling Services MHS: System for processing and transmitting aeronautical messages, based on an ICAO standard for air-ground-ground communication; e.g. for the transmission of NOTAM (notice to airmen), flight plans, or meteorological data
ARTAS	Air Traffic Management suRveillance Tracker And Server
ASGARD	Name of a communication solution developed specifically for fire brigades in Germany
ATC	Air Traffic Control
ATM	Air Traffic Management • Air traffic management (ATM) - ensures the safe and efficient movement of aircraft during all phases of their operation • Name of a Frequentis business segment that comprises the business domains Air Traffic Management Civil, Aeronautical Information Management, and Defence
CEF	Connecting Europe Facility The funding instrument for the trans-European networks in the fields of transport, energy, and telecommunications
EAD	European AIS (Aeronautical Information Services) Database The European AIS Database has been successfully operating since 2003. The EAD system was developed by Frequentis and is operated by GroupEAD. It ensures standardisation and harmonisation of the relevant aviation data and therefore greater safety, while reducing maintenance costs. It therefore represents an initial milestone for the concept of a "Single European Sky"
EENA	European Emergency Number Association The "counterpart" of North America´s NENA, setting standards for improved European networking of emergency numbers and joint projects (Europe-wide emergency number 112)
EFES	Electronic Flight ProgrEss Strips Project title for an Electronic Flight Strips System for all major airports in Poland

EUROCAE	European Organization for Civil Aviation Equipment EUROCAE is a non-profit organisation that deals with the standardisation of electronics for aviation
FFG	Austrian Research Promotion Agency National funding agency for industrial research and development in Austria
FRMCS	Future Railway Mobile Communication System
FTI	Austrian strategy for Research, Technology, and Innovations (RTI)
GMDSS	Global Maritime Distress and Safety System Global system for distress and safety radio communication; a set of technical equipment, service centres and rules to support global rescue efforts in cases of distress at sea and for the protection of shipping
GOF U-space	A project of the SESAR Joint Undertaking geared to safely integrating drones into air traffic; to this end, extensive tests and demonstrations were performed in Estonia and Finland (Gulf of Finland, GOF) in 2019
GSM-R	GSM for Railways A mobile radio system which is based on the dominant global mobile radio standard GSM, which has been specifically adapted for use in the railway sector
IBB	Installed Base Business Follow-up business to installed systems and solutions
ICAO	International Civil Aviation Organization ICAO is a UN specialised agency based in Montreal, Canada. Its aim is to foster sustained growth in the global civil aviation system
ICM	Incident and Crisis Management A solution process based on time, location, and classification of an event to enable operators in control centres and on-site personnel to manage planned events, operational and technical incidents, and emergency and crisis situations efficiently
IP Networks	IP stands for "Internet Protocol" IP networks work with the internet protocol and packet switching; They consist of subnetworks that use routers or switches to connect to the actual backbone network, which constitutes the communication infrastructure
MQ-25	Drone of the U.S. Navy with the primary task of air-to-air refueling of aircraft
NG911	Next Generation 9-1-1 Standard defined by the National Emergency Number Association (NENA) for the technical architecture and components for a future emergency call system in North America, including handling of VoIP emergency calls
PST	Public Safety & Transport Name of the Frequentis business segment comprising the Public Safety, Public Transport (i.e. railways) and Maritime business domains
REM	Rail Emergency Management Implementation of an automation-based emergency workflow, alarm and communication system for operational incidents on railways
ROC	Rail Operations Center
SESAR	Single European Sky ATM Research A pan-European initiative for the unification, harmonisation, and synchronisation of services within the framework of European air traffic management, which was initiated by the European Commission and the European Organisation for the Safety of Air Navigation, EUROCONTROL
URCA	Unified Railway Communication and Application
VCX	Product name for Frequentis' network nodes

Glossary of financial terms

Term	Explanation
CAPEX	Capital Expenditure Funds that are used by a company for the purchase, improvement, or maintenance of long-term assets
C rules	Principles of of the Austrian Code of Corporate Governance ("comply or explain"), which have to be followed; any deviation has to be explained and the reasons stated to be in compliance with the Code
CSR	Corporate Social Responsibility
EBIT	Earnings before interest and taxes
EBITDA	Earnings before interest, taxes, depreciation, and amortisation
EBIT margin	EBIT as a percentage of total operating performance
ECL	Expected credit loss
Equity ratio	Equity/total equity and liabilities
FN	Commercial register number, unique identifier of a legal entity in Austria
FQT	Ticker symbol of the shares of Frequentis AG
Free cash flow	Net cash flow from operating activities – net cash flow from investing activities
GDP	Gross Domestic Product Indicates the market value of all final goods and services produced within a nation's geographic borders within a year
IAS	International Accounting Standards
IASB	International Accounting Standards Board
IFRIC	International Financial Reporting Interpretations Committee
IFRS	International Financial Reporting Standards
ICS	Internal control system
IMF	International Monetary Fund
IoT	Internet of Things
IPO	Initial Public Offering
ISIN	International Securities Identification Number, Frequentis' ISIN: ATFREQUENT09
L rules	Legal requirements of the Austrian Code of Corporate Governance
LTIP	Long Term Incentive Plan
NaDiVeG	Austrian Sustainability and Diversity Improvement Act
OCI	Other Comprehensive Income
R rules	Recommendations of the Austrian Code of Corporate Governance
Shareholders' equity	Funds made available to the company by its owners through deposits and/or contributions or retained earnings
STEM	Abbreviation for studies and professions in the fields of science, technology, engineering, mathematics
UGB	Austrian Commercial Code

Financial Calendar 2020

02.04.2020	Annual financial statements 2019
04.05.2020	Record date for General Meeting
14.05.2020	Annual general meeting, Vienna
18.05.2020	Ex-dividend day
19.05.2020	Record date for dividend
20.05.2020	Dividend payment day
18.08.2020	Half-year financial report 2020

http://www.frequentis.com/en/ir > Financial Calender

Notes / Disclaimer

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