

FREQUENTIS

COMMUNICATION AND
INFORMATION SOLUTIONS

FOR A SAFER WORLD

Annual Report 2022

Contributing – Collaborating – Leading

Frequentis is proud to be a recognised partner of research organisations, standardisation bodies, and industry communities.



Key figures Frequentis Group

All figures in EUR million, except where otherwise stated.

Earnings	2022	2021	+/- in %	+/- in EUR million	2020	2019 ¹⁾	2018
Revenues	386.0	333.5	+15.7%	+52.4	299.4	303.6	285.8
EBITDA	45.6	46.5	-1.9%	-0.9	41.9	30.2	21.6
EBITDA margin	11.8%	13.9%	-2.1 PP	-	14.0%	9.9%	7.6%
EBIT	25.0	29.0	-13.7%	-4.0	26.8	17.2	15.6
EBIT margin	6.5%	8.7%	-2.2 PP	-	9.0%	5.7%	5.5%
Profit/loss for the period	18.9	20.8	-9.1%	-1.9	-3.4	12.5	11.8
Earnings per share in EUR	1.41	1.50	-6.2%	-	-0.30	0.93	0.94
Dividend in EUR (for the financial year)	0.22 ⁴⁾	0.20	+10.0%	-	0.15	0.15	0.10
Orders	2022	2021	+/- in %	+/- in EUR million	2020	2019	2018
Order intake	404.8	333.2	+21.5%	+71.6	314.6	333.7	306.3
Orders on hand (at year-end)	522.0	467.9	+11.6%	+54.1	427.6	391.5	355.2
Statement of financial position	2022	2021	+/- in %	+/- in EUR million	2020	2019 ¹⁾	2018
Total assets	340.3	315.7	+7.8%	+24.6	277.6	272.1	198.0
Shareholders' equity	147.3	129.9	+13.4%	+17.4	111.4 ²⁾	116.2	85.6
Equity ratio	43.3%	41.1%	+2.2 PP	-	40.1% ²⁾	42.7%	43.3%
Net cash	91.0	101.1	-10.0%	-10.1	85.0	77.8	55.4
No. of employees (average, FTE) ³⁾	2,081	1,937	+7.4%	-	1,907	1,849	1,763
Cash flow statement	2022	2021	+/- in %	+/- in EUR million	2020	2019 ¹⁾	2018
Cash flow from operating activities	14.2	48.8	-70.8%	-34.5	54.8	17.7	4.6
Cash flow from investing activities	-20.1	-24.6	+18.2%	+4.5	-7.0	-4.6	-4.4
Cash flow from financing activities	-16.5	-12.6	-30.9%	-3.9	-10.1	8.0	-14.2
Cash and cash equivalents at end of period	81.4	103.8	-21.6%	-22.4	91.3	66.9	45.5

Note: Slight differences may result from rounding of individual items and percentages.

¹⁾ Initial application of IFRS 16 (Leases) from 1 January 2019 (see Note 41 to the consolidated financial statements 2019).

²⁾ Comparative figures for 2020 restated.

³⁾ Average number of employees expressed as full-time equivalents (FTE); comparative figures for 2021 restated.

⁴⁾ Proposal to the Annual General Meeting in 2023.

2022 at a glance

Revenues in EUR million



386.0

+15.7%

EBITDA in EUR million



45.6

-1.9%

EBIT in EUR million



25.0

-13.7%

Order intake in EUR million



404.8

+21.5%

Orders on hand in EUR million



522.0

+11.6%

Net cash in EUR million



91.0

-10.0%

Dividend per share



EUR 0.22

+10.0%

Average no. of employees



2,081

+7.4%

Equity ratio



43.3%

+2.2% PP



Peter Skerlan
Member
of the Executive Board

Norbert Haslacher
Chairman
of the Executive Board

Monika Haselbacher
Member
of the Executive Board

Hermann Mattanovich
Member
of the Executive Board

Preface

Ladies and gentlemen,

Revenues and order intake in both segments grew strongly in 2022. We did our best to cushion the challenges that arose as the pandemic weakened as well as those caused by inflation in the wake of the horrific war in Ukraine. However, inflation gradually filtered through to the cost of goods sourced from suppliers, salary rises, and thus earnings.

Highlights

In light of these challenges, we are satisfied with our performance in 2022 and see it as a basis for further profitable growth.

- Order intake increased by 21.5% to EUR 404.8 million (2021: EUR 333.2 million)
- At year-end 2022, orders on hand were 11.6% higher at EUR 522.0 million (2021: EUR 467.9 million)
- Revenues rose by 15.7% to EUR 386.0 million (2021: EUR 333.5 million)
- EBITDA dropped to EUR 45.6 million (2021: EUR 46.5 million)
- EBIT decreased to EUR 25.0 million (2021: EUR 29.0 million)
- The profit for the period declined to EUR 18.9 million (2021: EUR 20.8 million)
- The equity ratio rose to 43.3% (2021: 41.1%)
- Net cash decreased to EUR 91.0 million (2021: EUR 101.1 million)

Strong hike in growth

Thanks to the continuous organic and inorganic expansion of our product portfolio, we were able to raise order intake by 21.5% to EUR 404.8 million. That is a good basis for the company's further growth. At year-end 2022, orders on hand amounted to EUR 522.0 million, an increase of 11.6% compared with year-end 2021. Thanks to the good order situation, capacity utilisation at Frequentis was and remains good.

Revenues rose to EUR 386.0 million, an increase of 15.7%. The Italian company Regola, which we acquired at the start of 2022, contributed to this increase. Frequentis' organic growth was 12.7%.

Here we benefit from our diversification – in terms of both market segments and regional positioning. That is a stabilising factor in periods of multiple challenges – inflation, supply chain bottlenecks, delayed deliveries, increasing geopolitical tensions, and weak growth rates in the major economies.

The outbreak of war in Ukraine in February 2022 indirectly impacted the Frequentis Group through higher inflation (initially for electricity, gas, and fuels). Inflation then filtered through to the cost of goods sourced from suppliers, salary rises, and thus earnings. As expected, expenses for business travel and trade shows also increased.

EBITDA declined slightly to EUR 45.6 million. Depreciation and amortisation increased, partly due to the write-down of product rights at acquisitions. Further, it was necessary to recognise higher impairment losses. In all, EBIT was EUR 25.0 million. The EBIT margin for 2022 (based on revenues) was 6.5%, which was within the target range of 6-8%.

Our financial position remains solid. Equity increased to EUR 147.3 million and the equity ratio was 43.3% at year-end 2022, a rise of 2.2 percentage points. The net cash position decreased to EUR 91.0 million. At the Annual General Meeting, we will be proposing a 10% higher dividend of EUR 0.22 per share for 2022.

Acquisitions

In January 2022, Frequentis acquired a 51% interest in Regola S.r.l. (based in Turin, Italy). Regola's innovative software solutions complement Frequentis' public safety product portfolio and therefore support its long-term growth strategy in this business domain.

Frequentis and Regola supply integrated control room solutions to improve the response of emergency services. Regola's command and control (CAD) solutions complement Frequentis' portfolio around public safety and adjacent markets. Its main product is the UNIQUE CAD product family, accompanied by products offered on a software-as-a-service basis. The aim is to step up international marketing.

In September 2022, Frequentis acquired a 25% stake in the Finnish software producer Aviamaps Oy. This company's software enables users of its platform to book drone flights directly online by clicking on a map (real-time aviation maps platform). This platform is a user-friendly flight planning and airspace management tool. In 2023, Aviamaps' software will be integrated into the Frequentis solution for automatic approval of drone flights in Austria. Frequentis has worked with this company on drone research projects in the past.

Seven acquisitions have been made since Frequentis' IPO in May 2019. Proactively searching for attractive M&A opportunities is part of the Frequentis strategy. When making acquisitions, we focus on the following parameters:

- Expansion of the product portfolio
- Profitable business model
- Access to new markets
- Cultural fit
- A good management team that will remain with the company
- Appropriate acquisition price

Business model

Frequentis has a stable and resilient business model that has proven effective in periods of multiple challenges. Since we supply communication and information solutions for the safety-critical sector, our customers are mainly authorities, who plan and award orders on a long-term basis. Our customers are the world's air navigation service providers and control centres for the police, emergency rescue services, fire service, railways, public transport systems, coastguards, and port authorities. The products supplied by Frequentis are part of the safety-critical infrastructure, in other words, the essential infrastructure of the relevant countries.

This infrastructure always has to be available and ready for operation – irrespective of the number of flights / flight movements or how many times the police, fire service, and emergency rescue services are deployed. There is still demand for our products and services as our well-stocked pipeline of tenders and requests shows.

Long-term vision

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

The transformation to a software-centric business is under way but, given our customer structure, it will take several years or even longer in some markets. Research and development are aligned to this transformation.

Innovations

We are proud to be an innovation leader in our markets, which enables us to play a part in shaping the industry. In new areas of business, our focus is on UTM / drone management (especially in the Air Traffic Management segment) and mission-critical communication via 5G/LTE (in the Public Safety & Transport segment). The supply of cloud-enabled software and the acquisitions we have made show that we are consistently implementing our strategy of steadily positioning Frequentis as a software company. In the Public Safety & Transport segment, in particular, there is rising demand for purely software- and private cloud-based solutions. We are playing an active part in this transformation of our industry.

Having focused on software development for customer orders and made temporary savings on development projects in 2020 and 2021 due to the COVID-19 pandemic, in 2022 our research and development activities returned to the pre-pandemic level of around 7% of revenues (EUR 26.8 million compared with EUR 15.0 million in 2021). We expect R&D expenses to be higher in 2023.

Sustainability

Our ESG (environment, social, governance) activities were rewarded by the rating agencies. Frequentis was awarded a silver medal by EcoVadis (previously bronze), so it ranks among the top 25% of the companies evaluated by this rating agency. Gaia Research and Sustainalytics also noted improvements.

Sustainability is a fundamental element in our corporate strategy. We want our descendants to inherit a viable environment. Therefore, we also help our customers meet their sustainability obligations. Work on the various topics is continuing in 2023 on the basis of the concepts that are already in place. The Frequentis Group is committed to continuously improving its social and ecological performance in all aspects, fulfilling its compliance obligations, and actively working towards sustainable development.

Forecast for 2023

Looking ahead to 2023, although the COVID-19 pandemic has now been overcome, there has not been any reduction in uncertainties:

- the war in Ukraine is entering its second year,
- inflation is far from the average of less than 2% (in the euro zone) seen since the start of the millennium,
- geopolitical tensions have become part of normal life again,
- the major economic areas such as the USA and the euro zone will probably achieve growth of just 1.4% and 0.7%, respectively, in 2023 (IMF forecast).

Although the tensions in south-east Asia are currently lower, even the outbreak of limited conflicts could rapidly cause disruption on the global IT hardware market. In the project business,

Frequentis has always had to address extensive challenges and dynamic changes in external influences and adapts constantly to the relevant conditions. The wide range of uncertainties and the resulting interdependencies make that more difficult at present.

It is not possible to make a reliable estimate of the exact effect on costs, e.g., travel expenses, higher salaries, delays in passing on inflation-driven price rises to customers, and potential supply chain bottlenecks and delivery delays.

In 2023, expenses for company-funded research & development will be higher than in 2022. Capital expenditure (capex) will be around EUR 8 million.

Depending on the aspects outlined above, Frequentis has the following targets for 2023 compared with 2022:

- Increase revenues
- Increase order intake
- EBIT margin of around 6-8%

Trust in Frequentis

Our customers, partners, suppliers, investors, and around 2,100 employees continue to place their trust in Frequentis' robust business model. We would like to thank everyone connected with Frequentis for that and for their excellent collaboration. Together we can build a safe global future.

Vienna, 13 March 2023

Best regards,

Norbert Haslacher
Chairman
of the Executive Board

Monika Haselbacher
Member
of the Executive Board

Hermann Mattanovich
Member
of the Executive Board

Peter Skerlan
Member
of the Executive Board





Report of the Supervisory Board

The Frequentis Group celebrated its 75th anniversary in 2022. During this time, Frequentis grew from a tiny company in post-war Vienna into a medium-sized Austrian enterprise and ultimately into a successful global group of companies headed by the publicly listed company Frequentis AG.

Unfortunately, this happy event was overshadowed by the serious events on the global stage. First and foremost, the outbreak of war in Ukraine, which – in addition to unimaginable human suffering – resulted in energy price rises and, as a result, in above-average inflation rates in almost all countries. Moreover, the COVID-19 pandemic continued to have some impact in 2022.

Thanks to Frequentis' stable business model as a provider of communication and information systems for control centres in the safety-critical sector, revenues increased even in this particularly challenging environment and the Group therefore remained on its successful growth track, although business was affected by high inflation rates around the world.

Overall, Group revenues increased by 15.7% year-on-year to EUR 386 million. The Group's EBIT was EUR 25 million, giving an EBIT margin of 6.5%. With an equity ratio of 43.3% and net cash of EUR 91 million at year-end 2022, Frequentis still has a very solid financial base and is very well-prepared for further development.

Changes on the Executive Board and Supervisory Board

Following careful consideration, in the reporting period the Supervisory Board decided to extend the Executive Board by adding a new member with effect from 1 January 2023 and appointed Ms. Monika Haselbacher as Chief Operations Officer (COO) from this date. Ms. Haselbacher has taken over the COO agenda from Mr. Mattanovich, who remains Chief Technology Officer (CTO). I am particularly pleased that we have been able to fill the important post of COO with a highly qualified person from within the Frequentis Group. I am convinced that the four-member Executive Board positions Frequentis optimally for the future and will safeguard the continuity, ongoing development, innovative capability, and business success of the entire Group.

On the Supervisory Board there was one change in the composition of the employee representatives due to the retirement of Mr. Siegfried Meisel. Mr. Stefan Hackethal was appointed to replace him.

Work of the Supervisory Board and its committees

In 2022, the Supervisory Board performed the tasks imposed on it by the law, the articles of association, and the rules of procedure with the utmost care. We regularly advised and supervised the Executive Board in the management of the company. The Executive Board kept the Supervisory Board informed at all times about the business situation and development of Frequentis AG. In addition, the chairmen of the committees and I maintained regular contact with the Executive Board to discuss opportunities and risks for the company.

The Supervisory Board of Frequentis AG held four regular meetings and one strategy meeting in 2022. At these meetings, the Supervisory Board received detailed reports from the Executive Board on the company's strategy, business performance, and situation, as well as the principal projects in progress, material events, possible acquisitions, and the related questions. In this context, the Supervisory Board discussed, questioned, and examined the information provided by the Executive Board. This examination, which took the form of an open discussion between the Executive Board and the Supervisory Board, did not result in any objections. The approval of the Supervisory Board was obtained on matters where this was required by the articles of association or rules of procedure.

The Audit Committee held three meetings in the reporting period and performed all the tasks entrusted to it. In particular, it examined the company's financial statements, the consolidated financial statements, and the consolidated corporate governance report, supervised the audit of the financial statements and consolidated financial statements and the independence of the auditor, prepared a proposal for the appointment of the auditor of the financial statements and consolidated financial statements, and oversaw the company's accounting, internal control and internal audit system, and its risk management system. In addition, the Audit Committee performed the preliminary examination of the consolidated non-financial report. The Supervisory Board was regularly informed of the outcome of the meetings of the Audit Committee.

The Committee for Executive Board Issues met twice in the reporting period. In particular, it dealt with the questions and necessary preparations for the appointment of Ms. Monika Haselbacher as an additional member of the Executive Board with effect from 1 January 2023. Further, the committee discussed the remuneration report to be prepared by the company and drafted a proposal for the Long-Term Incentive Plan 2022 (LTIP 2022) for the Chairman of the Executive Board. The remuneration report and the LTIP 2022 were subsequently adopted at the company's Annual General Meeting on 2 June 2022.

The special committee established in connection with the insolvency of Commerzialbank Mattersburg in 2022 held two meetings in 2022 and advised the Executive Board on the ongoing judicial proceedings to assert possible claims by the company on the bank and third parties.

None of the members of the Supervisory Board were present at only half or less than half of the meetings of the Supervisory Board and the committees they belong to.

Financial statements of Frequentis AG and consolidated financial statements for 2022

The annual financial statements of Frequentis AG and the consolidated financial statements as at 31 December 2022 submitted by the Executive Board, as well as the management report for the company and the Group for the 2022 financial year were audited by the appointed auditors, BDO Assurance GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft ("BDO"). The audit did not give rise to any objections and the statutory requirements were complied with in full, so the auditors issued an unqualified audit opinion. BDO performed a limited assurance review of the data and disclosures on sustainability reporting in the non-financial report for 2022. This did not give rise to any objections.

The Supervisory Board's Audit Committee examined the annual financial statements, the consolidated financial statements, the auditors' reports, the Executive Board's proposal for the distribution of the profit, the consolidated corporate governance report, and the consolidated non-financial report in detail with auditors at its meeting on 29 March 2023 and proposed that they should be approved by the Supervisory Board. The Supervisory Board examined the documents in accordance with Section 96 of the Austrian Companies Act (AktG) and agreed with the findings of the Audit Committee. The annual financial statements for Frequentis AG for 2022 were accepted by the Supervisory Board, so they are deemed to be approved pursuant to Section 96(4) of the Austrian Companies Act. The management report, the consolidated financial statements prepared in accordance with the International Financial Reporting Standards (IFRS), the Group management report, the consolidated corporate governance report, and the consolidated non-financial report were approved by the Supervisory Board. The Supervisory Board agreed to the Executive Board's proposal for the distribution of the profit. A proposal will therefore be put to the Annual General Meeting on 1 June 2023 that a dividend of EUR 0.22 per share should be paid for the 2022 financial year.

On behalf of the entire Supervisory Board, I would like to express my thanks and appreciation to the entire Executive Board and all employees of the Frequentis Group for their commitment and successful work in the past financial year. We would also like to express our special thanks to the customers and shareholders of Frequentis AG for their ongoing trust in these constantly challenging times.

Vienna, 29 March 2023



Johannes Bardach
Chairman of the Supervisory Board of Frequentis AG



The Company



Over 75 years of innovation – for a safer world

Wherever Frequentis systems are used, people bear responsibility for the safety of other people and property. Frequentis has been developing and marketing communication and information systems for control centres in the safety-critical sector for more than 75 years. In 2022, the Frequentis Group generated revenues of EUR 386.0 million and EBIT of EUR 25.0 million. Its products and solutions are marketed through two segments:

The Air Traffic Management segment (67% of revenues) comprises the following business domains:

- Civil air traffic control
- Military air traffic control and air defence
- AIM (aeronautical information management)

The Public Safety & Transport segment (33% of revenues) comprises the following business domains:

- Police / fire brigades / emergency rescue services
- Railways and local public transport systems
- Coastguards and port authorities

As a recognised specialist, Frequentis develops future-oriented solutions for control centres in collaboration with key account customers and makes new technologies usable for safety-critical applications. Using a human-centric design process, integrated systems are created to provide safer and more stable working environments for end-users in control centres, such as air traffic controllers, operators, and dispatchers. For more information on Frequentis, please visit www.frequentis.com/en/about-us.

Frequentis control centres for people's lives

Frequentis develops and optimises systems for customers in safety-critical areas of the global mega-markets for transport and safety infrastructure – wherever efficient and flexible high-performance solutions are required. Increasing mobility, digitalisation, and rising safety and security requirements are driving long-term growth. Modern technologies are used to optimise control centres for traffic and public safety.

Frequentis' solutions are already used operationally by air traffic controllers, dispatchers, and operators at more than 45,000 working positions in air traffic control, public safety, railways / public transport, and the maritime sector.

Overview of the Frequentis Group

Founded in 1947, Frequentis is the global market leader in voice communication systems for air traffic control with a market share of around 30%. It is also the global leader in aeronautical information management (AIM) and message handling systems for air traffic. Since May 2019, shares in Frequentis AG have been listed on the Vienna and Frankfurt stock exchanges under ISIN: ATFREQUENT09, WKN: A2PHG5.

The knowledge and experience of around 2,100 employees worldwide (full-time equivalents, including approximately 1,000 at the company's headquarters in Vienna), together with a network of companies and local representatives in more than 50 countries, enable Frequentis to serve more than 500 customers in some 150 countries. The parent company of the Frequentis Group is Frequentis AG, which is based in Vienna, Austria.

FREQUENTIS AG, Austria			
Regional Sales & Operations	Products, Sales & Operations	Group Services	Special Purpose or Minority Shareholdings
Europe	Frequentis Deutschland, Germany	ATRICS, Germany, 51%	Frequentis Czech Republic
	Frequentis France	CNS-Solutions & Support, Austria	Frequentis Romania
	Frequentis Norway	ELARA Leitstellentechnik, Germany, 51%	Frequentis Solutions & Services, Slovakia
	Frequentis UK	Frequentis Comsoft, Germany	PDTS, Austria
	Frequentis Orthogon, Germany		Frequentis Invest4Tech, Austria
	Regola, Italy, 51%		GroupEAD Europe, Spain, 28%
			Mission Embedded, Austria, 20%
			Nemergent Solutions, Spain, 15%
			Secure Service Provision, Germany, 80%
			Systems Interface, UK, 51%
			team Technology Management, Austria, 51%
Australia/Asia	Frequentis Australasia, Australia	C4i, Australia	AIRNAV Technology Services, Philippines, 65%
	Frequentis Middle East, UAE		
	Frequentis Shanghai, China		
	Frequentis Singapore		
Americas	Frequentis Brazil	Frequentis California, USA	
	Frequentis Canada		
	Frequentis Defense, USA		
	Frequentis USA		

Simplified visualisation; all shareholdings 100% unless otherwise stated. Company names abbreviated. As at March 2023.

Safety-critical DNA

Frequentis thrives on a corporate culture supported by safety-critical DNA, which influences its daily work. Understanding customers' safety-critical environments means that Frequentis can provide optimum support so they can meet their business objectives. This deep knowledge of their tasks and responsibilities helps Frequentis support them in the safety-critical processes and workflows in their day-to-day work.

To supplement this extensive understanding of its customers' needs, Frequentis focuses on long-term customer relationships and support throughout the life cycle, thereby underscoring the sustainability of its solutions.

Cross-sector solutions for control centres

Control centre solutions are systems for command centres for safety-critical tasks as encountered daily by Frequentis on its customers' premises. Control centre solutions are used either to control traffic or to organise safety. The tasks to be performed are always the same, although they are labelled differently in each application.

To put it simply, there are basically four components that always interact:

- A tactical situation report that shows the operator the current situation
- A planning and management tool that helps make the right decision quickly and safely
- A communication system to communicate with transport users, emergency services, or security forces
- Safety-critical networks to ensure seamless operational continuity



Voice and data communication, an area where Frequentis is the world leader, is an indispensable element of every control centre. The communication system is therefore often a good starting point for the development of fully integrated solutions for customers, using additional products and services from the Frequentis service portfolio. In addition, networks are becoming the centre of communication solutions. For example, traditional voice communication systems are being extended by networked voice and data communication services. The requirements for safety-critical operations entail high market entry barriers.

Frequentis sets standards

Frequentis' customers are public authorities, organisations, and companies that perform safety-critical tasks. Its control centre solutions comprise proprietary software solutions and hardware components that are configured for specific applications.

The company develops state-of-the-art IT components and integrates them into comprehensive communication and information systems that meet the highest requirements for safety-critical applications. In addition, Frequentis provides a range of supplementary services to support customers throughout the entire life cycle of their Frequentis systems. Participation in standardisation bodies such as ETSI and EUROCAE allows our solutions to be anchored in standards and regulations. That underscores the future-proofing of Frequentis solutions.

High innovative capability

Innovation is very important to Frequentis. The company is proud to be an innovation leader providing sustainable innovations and solutions to extend the market it addresses. The basis for this is interdisciplinary collaboration, which leverages the domain-specific know-how of the segments and the specialist expertise of the central support and governance functions. These activities are managed by the New Business Development department. The present focus is on the ongoing development of the digital (remote) tower technology, drone management, and the use of the 5G/LTE mobile communication standard in safety-critical applications. In addition to digital (remote) towers, which have already been used for a number of years, the realisation of this strategy includes the first national drone management system in Norway and the investment in Nemergent, a Spanish software company operating in the field of mission-critical services.





The Share

Shareholder structure

Frequentis' core shareholder is Hannes Bardach. He holds around 68% of the shares (about 8% directly and about 60% indirectly through Frequentis Group Holding GmbH). B&C Holding Österreich GmbH holds more than 10% of the shares. The free float is approximately 22%, mainly investors from Germany, Austria, and other European countries. For further information, including a share price chart, see www.frequentis.com/ir > Share.

Analysts

BankM (Roger Becker, Daniel Großjohann), Raiffeisen Bank International (Teresa Schinwald), and since July 2022, ODDO BHF (Nicolas Thorez) regularly write analyses and notes on Frequentis shares.

Share price performance

Having ended 2021 at EUR 26.70 / EUR 26.80 (Vienna Stock Exchange / XETRA Frankfurt), shares in Frequentis made a positive start to 2022 and the share price rose to EUR 32.10 / EUR 32.00. However, it then dropped back to EUR 25.00 during January. This was followed by an upward trend to an all-time high of EUR 33.40 (on both the Vienna and the Frankfurt stock exchange) in mid-August 2022.

Following this high, the shares dropped to a low for the year of EUR 23.50 / EUR 22.60 (Vienna Stock Exchange / XETRA Frankfurt) towards the end of September, before rallying to EUR 28.50 / EUR 28.60 at year-end 2022. Over the year, the shares therefore gained 6.7% (Vienna Stock Exchange and XETRA Frankfurt) and therefore outperformed the ATX index (-19.0%) and the DAX index (-12.3%).

The most important exchanges for shares in Frequentis were the Vienna Stock Exchange and XETRA Frankfurt, which accounted for 44 percent and 30 percent of trading respectively, followed by Tradegate with 23 percent. The remainder of trading was on the trading floor in Frankfurt and other German stock exchanges. The average daily trading volume on the above stock exchanges was around 6,100 shares per day in 2022 (2021: around 7,000 shares per day).

Dividend and dividend policy

A dividend of EUR 0.22 per share for the 2022 financial year (2021 financial year: EUR 0.20 per share) will be proposed at the Annual General Meeting on 1 June 2023. If this is approved, the total dividend distribution will be around EUR 2.9 million, giving a dividend yield of 0.77% based on the closing price on the Vienna Stock Exchange at end-December 2022 (2021: 0.75%).

Frequentis' dividend policy is to pay out around 20-30% of adjusted profit of the Frequentis Group, after tax – bearing in mind the annual ceiling of 40% of the net profit of Frequentis AG reported in the individual financial statements of Frequentis AG prepared in compliance with the Austrian Commercial Code (UGB).

Treasury shares

The company had 8,910 treasury shares as at 31 December 2022 (31 December 2021: 15,500). That was around 0.0671% of the share capital.

Capital market communication

As the interface to the capital market, Investor Relations focuses on providing extensive and transparent information for the financial community. The aim is to raise awareness of Frequentis and strengthen trust in the company and its shares. The Executive Board and the Investor Relations department engaged in extensive communication with private and institutional investors in 2022 to foster dialogue. In addition to financial reporting, this included conference calls and participation in several virtual and face-to-face capital market conferences and web conferences. An overview of all past and future events is available at www.frequentis.com/en/ir > [Financial calendar](#).

The Annual General Meeting in June 2022 was held remotely. In keeping with its security-critical focus, Frequentis offered shareholders the opportunity to follow the proceedings via three different channels: two separate internet streams or by phone.

Key share data

		XETRA Frankfurt	Vienna Stock Exchange
Closing price on 31 December 2022	in EUR	28.60	28.50
Lowest price (closing price) in 2022	in EUR	22.60	23.50
Highest price (closing price) in 2022	in EUR	33.40	33.40
No. of shares outstanding as at 31 December 2022	in millions	13.28	13.28
Market capitalisation as at 31 December 2022	in EUR million	379.8	378.5
Share price performance in 2022 (31 December 2022 vs. 31 December 2021)		+6,7%	+6,7%
Share price performance since the IPO in May 2019 (31 December 2022 vs. issue price of EUR 18.00)		+58.9%	+58.3%
Index performance in 2022 (31 December 2022 vs. 31 December 2021)		DAX -12.3%	ATX -19.0%

Basic information on the share

ISIN	ATFREQUENT09
WKN	A2PHG5
Free float	around 22%
Stock exchanges	Vienna Stock Exchange, XETRA Frankfurt, Frankfurt Stock Exchange
Market makers/designated sponsoring	ODDO-BHF (Vienna and Frankfurt) BankM (Frankfurt)
Ticker symbol	FQT
Reuters ticker symbol	FQT.VI (Vienna), FQT.DE (Frankfurt)
Bloomberg ticker symbol	FQT:AV (Vienna), FQT:GY (XETRA Frankfurt)
No. of shares outstanding as at 31 December 2022	13,280,000
Share capital	EUR 13,280,000
Date of initial listing	14 May 2019
Issue price	EUR 18.00

Investor Relations contact

Frequentis' investor relations website at www.frequentis.com/en/ir provides extensive information for shareholders, press releases, presentations, videos, a fact sheet, financial reports, a share chart, the financial calendar, and information on corporate governance.

Contact: Stefan Marin, +43 1 81150 1074, investor@frequentis.com.



Corporate social responsibility: Insights into 2022

“Women & Career“ initiative

Diverse teams are more successful – challenges in project management, development work, and innovations can best be solved through different approaches and problem-solving perspectives.

To help increase the proportion of women at Frequentis and to encourage women to actively shape their careers, the “Women & Career“ initiative was launched in 2022. In July, the kick-off of the “Women’s Community“ took place.

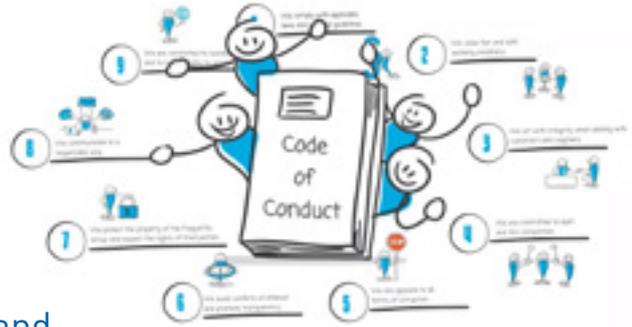


Think.Act.Save – campaign for efficient energy use

Environmental issues and the careful use of resources along the entire value chain is a major concern for Frequentis.

With the awareness campaign “Think.Act.Save“, all employees were called upon to contribute to the conscious use of resources, especially the efficient use of energy. In addition, energy-saving tips were published for the company workplace and when working from home.





Mandatory “Business Ethics and Code of Conduct” e-learning module

In mid-July 2022, a mandatory e-learning module on “Business Ethics and the Code of Conduct” was introduced. The Code of Conduct sets out the principles and guidelines for acting responsibly and with integrity. The training module is intended to ensure that these principles and values continue to be universally recognised and lived throughout the Group in line with the consistent implementation of the Frequentis growth strategy.

**Top 2023
Company**



kununu ^{ES}

Kununu Top Company 2023

As in the previous year, Frequentis received the “Top Company” award from the Kununu employer rating platform.

Frequentis achieved an overall rating of 4.3 and a rating by employees of 4.2 (out of a possible rating of 5 stars). This puts Frequentis among the top 5% of the best-rated companies in German-speaking regions!

Sustainable procurement



Every year, the Frequentis procurement department does a supplier evaluation in cooperation with the technical teams and quality management. The top three suppliers received performance awards and certificates. As well as quality, price, reliability, and service, responsible procurement emphasises the importance of respecting human rights, humane working conditions, and environment-related issues. In 2022, for the first time, a special award was given for the best sustainability score.



Donation initiative by Frequentis IT to “PCs for all”

“Donate instead of throw away” – in accordance with this motto, Frequentis provided hardware that was no longer used to the non-profit organisation “PCs for All”. The laptops, PCs, printers, and headsets will be used for children who lack the appropriate equipment at schools or in home schooling.

Vitamins free of charge for the cold season

Vitamins are essential for maintaining health – especially in autumn and winter. In November 2022, the “Vitamins for Autumn” campaign – free fruit and side salads in the staff restaurant – was launched at the company’s headquarters in Vienna.



Safety Community implemented

“Communities of Practice” at Frequentis provide a platform for cross-functional and cross-organisational communication and knowledge exchange.

To emphasise the importance of safety in Frequentis solutions – safety-critical systems developed and deployed on the basis of the best available technology – and to continuously develop safety expertise throughout the entire Frequentis Group, the Frequentis Safety Community was founded in 2022.



The background is a solid blue color with a complex pattern of white, semi-transparent circular lines. These lines are arranged in a way that creates a sense of depth and movement, resembling a stylized globe or a series of overlapping orbits. The lines are most prominent in the center and right side of the image, fading towards the left.

Some
insights into
Frequentis'
projects



Qatar enhances airspace communication and tower automation with Frequentis to meet expected air traffic increases

Qatar Civil Aviation Authority (QCAA) selected Frequentis to upgrade its existing voice communication system (VCS) and modernise its air traffic control (ATC) tower operation to meet the rise in air traffic movements from 700 to 1,800 a day during the football World Cup. QCAA upgraded both its main and back-up VCS systems to enhance airport operations and maintain safety despite higher demands on airspace.

The back-up VCS benefits from X10, Frequentis' next generation VCS, which increases resilience. In addition, QCAA implemented Frequentis' electronic flight strips in the ATC tower to help air traffic controllers effectively manage the increased workload and maintain safety during peak air traffic movements.

ICAO and MEVA III member states extend satellite network services with Frequentis until 2025

ICAO and the MEVA III member states awarded Frequentis the contract for the management of its Central America and Caribbean satellite network services for an additional three years until 2025. The project is enhancing the reliability of the aeronautical telecommunications service, as well as bringing cost savings and bandwidth optimisation.

The Frequentis MEVA network is made up of 18 nodes for 15 air navigation service providers at sites in the Caribbean and Central and North America and is an important part of ICAO's work to create a phased transition from legacy communication technology in the region, increasing its efficiency, while complying with the strict ATM requirements.



Frequentis provides Austro Control with IT-based voice communication system for Schwechat Tower, Vienna

Frequentis is equipping 12 air traffic controller workstations in the tower at Vienna Airport with the latest Frequentis technology, enabling location-independent data centre operation.

The delivery of the new voice communication system for the Vienna Airport tower is the continuation of a joint implementation path. Austro Control had previously commissioned Frequentis to renew its Area Control Centre voice communication systems in a Virtual Centre environment, including two data centres. The latest implementation for the Schwechat Tower at one of Europe's busiest airports, is now following suit.

France selects Frequentis Remote Digital Tower

This solution, which is to be located in a Remote Tower Centre (RTC) in Toulouse, will initially manage air traffic for Tours Val De Loire Airport over 500 kilometres away.

Based on the renowned smartVISION product from Frequentis, which is already operational in six countries, the Remote Digital Tower will allow Tours Val De Loire airport to triple passenger traffic. The solution will include on-site video technology at the airport, central equipment in the RTC at Toulouse-Blagnac Airport with several working positions, and a test system for training.





Frequentis continues voice communication system replacement for Airservices Australia under the OneSKY programme

Airservices Australia has awarded Frequentis the contract for a Bypass Voice Communication System (BVCS) to be used in the new Civil Military Air Traffic Management System (CMATS). CMATS will replace the current independent civil and military air traffic management systems with one advanced, unified system as part of the OneSKY programme. The BVCS will be completely independent from the main VCS, providing the required resilience.

Airservices Australia's BVCS systems will be built at the new Frequentis Integration Facility in Brisbane involving Frequentis' local supply chain.



Eight African nations upgrade aviation message handling (AMHS) with Frequentis

In this project, ASECNA, the Agency for Aerial Navigation Safety in Africa and Madagascar, took over the central procurement of the AMHS infrastructure for its member countries, including the delivery of eight complete and independent systems. Cameroon, the Central African Republic, Comoros, Côte d'Ivoire, Equatorial Guinea, Gabon, and Guinea-Bissau now benefit from the most advanced upgrade of their existing legacy AFTN (aeronautical fixed telecom network) messaging service.

The innovative, fully integrated messaging technology is now increasing their communication capability and fully supporting the International Civil Aviation Organisation's (ICAO) basic and extended AMHS service profiles.



Slovenia Control enhances area and terminal control performance with Frequentis software

Slovenia Control, the air navigation service provider (ANSP) for Slovenia, has selected Frequentis to upgrade the software of its safety nets for area and terminal control to provide enhanced airspace performance, safety and alerting functionalities. The safety nets system, known as PRISMA-SNET, is a key module in Frequentis Comsoft's PRISMA Air Traffic Management (ATM) automation suite.

Using both flight plan data and current position data, PRISMA-SNET provides air traffic controllers with clear alerts of potential safety issues in time to take preventive action and is fully integrated into Slovenia Control's ATM environment. The safety nets system also helps ensure safe take-offs, transits and landings and detects deviations from planned course and altitude, depending on the flight data processing system (FDPS).

Argentinian airspace puts enhanced message handling system into operation in Latin America

Frequentis Comsoft has deployed an aeronautical message handling system (AMHS) for Argentinian air navigation service provider (ANSP) EANA, supporting Argentina's modernisation programme.

The solution consists of a main, contingency, and training system, supporting EANA's mission to deliver safe, efficient, and sustainable air navigation services in Argentinian airspace. The solution replaces the country's previous AMHS system and is able to convert over 900 aeronautical messages per second.



Frequentis is supplying the German armed forces with IT equipment for national air defence

The Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support (BAAINBw) and Frequentis Deutschland GmbH have signed a contract for the delivery of the complete "Network Redesign and Obsolescence Elimination – IT Equipment Command and Control Centre National Air Defence / National Situation and Command Centre Security in Airspace" system.

The Frequentis command and control system will support the "National Situation and Command Centre for Security in Airspace" in securing German airspace. With the support of this system, security-critical scenarios such as unauthorised intrusion into airspace, aircraft hijackings, and terrorist attacks can be handled efficiently and effectively. For this purpose, nationwide data sources from the radar and radio sites of the German armed forces can also be accessed.





Royal Netherlands Air Force selects Frequentis secure voice communication system

The Royal Netherlands Air Force (RNLAF) is replacing three end-of-life voice communication systems (VCS), selecting the Frequentis secure VCS as the most suitable for its demands in a competitive tender.

RNLAF is responsible for the safety and the integrity of national and NATO airspace, with voice communications systems (VCS) being the primary communication medium for the crew in the execution of their tasks. The three VCS to be replaced support up to 100 controller working positions.

Frequentis to deliver largest military voice communications system in the Middle East

Multiple defence forces, including the air force, joint operations, navy operations, air defence, and the national guard, will receive Frequentis' secure communication technology, creating the largest military communications system in the region.

The scope of the project includes over 130 controller working positions deployed at over 10 sites, interfaces for radios with radio remote control, telephone lines and advanced mission-critical logging of voice and surveillance data. The project involves full installation and will also encompass mobile units for tactical operations.

UK skies protected by C4i Pty Ltd secure voice communication system

C4i Pty Ltd, the Melbourne-based company of the Frequentis Group, has supplied its VOICE C2 voice over IP (VoIP) communication system for the Ministry of Defence's Guardian project for the UK's new Air Command and Control System. C4i Pty Ltd, which has been a member of the Frequentis Group since 2021, is a subcontractor to IBM Consulting in the UK which is leading the programme to develop and install the replacement system.

The Guardian project is replacing the current systems at Royal Air Force (RAF) bases in the UK with new technology which enhances the RAF's air situation picture to support continued early detection of suspected aircraft threats as a basis for a rapid response. Replacing the existing RAF VCS with the new VoIP-based system from C4i provides enhanced flexibility, capability, and security, as well as reducing overall life cycle costs.



Large public safety events rely on Frequentis' mission-critical communication and information solution

Maintaining public order and ensuring safety and security are some of the key services Frequentis customers need to provide for citizens and visitors.

In 2022, Frequentis' mission-critical communication and information solutions and services once again enabled customers to successfully manage major large public events such as the G7 summit in Bavaria, the state funeral of Queen Elizabeth II, and the football World Cup.



Integrated Control Centre Saarland – Commissioning of the emergency call-handling and radio dispatching system by ZRF Saar

ASGARD, the innovative communication solution for rescue coordination centres and critical industry prevailed against the competition on the German market in 2022.

Following an EU-wide tender for the supply and integration of communication systems at its main site in Winterberg and the redundancy sites in Merzig and Bexbach, the Administration Union for Rescue Services and Fire Brigade Alerting Saar (ZRF Saar) awarded Frequentis Deutschland GmbH the contract for this project.

Successful completion of the pilot phase of the Horizon2020 EU project Broadway

After several years of development work by the BroadPort consortium led by Frequentis, a final test with over 40 emergency personnel from various emergency services organisations from all over Europe and 8 local Spanish authorities successfully demonstrated the practical proof of a Europe-wide safety-critical broadband network based on the new international 3GPP MCX standard.

The radio network technologies currently in global operation such as TETRA, TETRA PoL, or P25 technologies will be replaced by MCX in the coming decades, for which Frequentis is well prepared.

Frequentis presented MissionX, its mission-critical, multimedia 24/7 radio communication of the future for critical infrastructure operators and blue light organisations, at Critical Communications World 2022.

Frequentis Emergency Services Network gateway certified for use

A key-enabler of the transition from the TETRA-based emergency services radio network Airwave in Great Britain to the new wireless broadband LTE Emergency Services Network (ESN) is a certified gateway for secure connection of the control room backend to the new LTE network. Frequentis was one of the first companies to successfully certify its ESN gateway via the Network Approval Testing Service.

Customers in the UK can therefore be sure that control room operators will have access to a fully approved and easy-to-use ESN interface when Airwave is discontinued and during the transition.

The certification of the gateway is being supported by Frequentis' partner Nemergent.





Unique innovation partnership: Austrian Federal Railways and Frequentis collaborate on hangar-based drone operations

Automated drones will provide faster, more efficient, and more frequent rail track maintenance checks in the future. The innovation partnership between the Austrian Federal Railways ÖBB and Frequentis to research hangar-based automated drone flights in Austria is an important step in advancing the routine implementation of automated drone flights beyond line of sight.

The focus of the cooperation is on preventing railway incidents through routine maintenance flights, leading to early detection of damage to infrastructure, natural hazard management, monitoring route availability, and emergency management at major events.



Kordia and the Australian Maritime Safety Authority renew partnership to deliver safety of life communications at sea

Kordia, Australasia's leading maritime safety system provider, has been awarded a contract by the Australian Maritime Safety Authority (AMSA) to continue delivering global maritime distress and safety system (GMDSS) radio services in Australian waters.

Frequentis technology has been used successfully by Kordia since 2012 and the contract has been extended for further 10 years for the new generation of Frequentis MarTRX.

The background is a solid blue color with a complex, abstract pattern of white, semi-transparent circular lines. These lines are arranged in a way that creates a sense of depth and movement, resembling a stylized fingerprint or a series of overlapping orbits. The lines are most prominent in the lower right quadrant and fade towards the top left.

Some insights
into **R&D**
projects & initiatives



Safe flying with drones: Austro Control and Frequentis launch traffic management system for drones

Austro Control and Frequentis are setting another milestone in their decade-long cooperation by launching a drone management solution to enable their safe integration into Austrian airspace. The system will be operational by early 2023. The number of drones in Austrian airspace is steadily increasing. To ensure that drones continue to travel safely in the future, dedicated traffic management systems with automated solutions are needed.

Austro Control is relying on the development of a UTM (unmanned traffic management) system with Frequentis. The cooperation is the result of an extensive public tender process in which several leading companies from the technology sector participated.

Frequentis Australasia to develop drone integration platform for Airservices Australia

Airservices Australia has selected Frequentis to participate in a competitive down-selection process to create Australia's first Flight Information Management System (FIMS). The system will support the safe integration of emerging airspace users into the country's low-altitude airspace. Frequentis is one of three companies selected to create a system tailored to Australia's aviation industry. Successful field trials were conducted in November 2022.

Frequentis UTM system to optimise drone operations for Norwegian offshore platforms



Avinor ANS, Norwegian Air Navigation Services, has awarded Frequentis the contract to extend its existing unmanned traffic management (UTM) system to enable safe and efficient UTM service provision around offshore platforms in the Norwegian North Sea.

The contract, within a framework agreement between Frequentis and Avinor, will allow UTM service provision by an authorised third-party UTM operator to sustainably supervise and manage drone traffic around key infrastructure assets.

Successful drone test flights in Austria for EU project GOF 2.0

The drone market is growing rapidly and unmanned aerial vehicles, including air taxis, are the next milestone for the development of airborne digital mobility technologies. The SESAR 3 JU project GOF 2.0 Integrated Urban Airspace Validation is developing solutions for the safe and sustainable integration of unmanned aerial vehicles and air taxi operations in urban airspace. In September 2022, an important series of tests took place in Austria, the findings of which mark a milestone for further development.

This project has received funding from the SESAR 3 Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No 101017689.





Airports of the future: Frequentis and German Aerospace Centre to bring multiple remote tower operations to the next level

Multiple Remote Tower Modules are developing fast and will eventually replace traditional air traffic control (ATC) towers. Located in a remote tower centre, the modules allow control of several different airports with varying complexity, from a single location. This is made possible by the centralisation of air traffic services and the pooling of resources to enhance efficiency.

A prototype developed within the framework of SESAR was set up and tested by Frequentis and the German Aerospace Centre (DLR) during validation exercises in Germany. Highlights were shown during the SESAR online open day hosted by Frequentis.

This project has received funding from the SESAR Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No 874470.

The background is a solid blue color with a complex, abstract pattern of white, overlapping circular and curved lines. These lines vary in thickness and opacity, creating a sense of depth and movement. Some lines are sharp and prominent, while others are faint and blend into the background. The overall effect is a dynamic, organic-looking texture.

Awards **and honours**



Safety Engineer and Safety Manager of the Year: Gabriele Schedl and Werner Winkelbauer presented with important international system safety accolades in 2022

The International System Safety Society (ISSS) recognises outstanding achievements by system safety professionals every year. In 2022, it presented prestigious awards to two Frequentis employees. Gabriele Schedl was recognised as Safety Manager of the Year and Werner Winkelbauer as Safety Engineer of the Year.

Werner Winkelbauer has been a system safety engineer at Frequentis since 2001. This is the first time Frequentis has received the award in this category. By contrast, this was the second time Gabriele Schedl received the Manager of the Year award – the first was in 2014. Moreover, she received the International Safety Award in 2019. Gabriele Schedl is head of the Frequentis Safety Management Competence Centre, which was founded in 1995. Werner Winkelbauer has been her deputy since 2001.



Air Traffic Control Association awarded Massimo Garbini the prestigious Glen A. Gilbert Memorial Award 2022

Massimo Garbini, who is a member of the Frequentis ATM Executive Board, was selected as the 2022 recipient of the Glen A. Gilbert Memorial Award – the highest honour awarded by the Air Traffic Control Association (ATCA) and one of the most prestigious awards in aviation. The award honoured him for more than 45 years of air traffic management experience in various management positions. It was presented at the Glen A. Gilbert Memorial Award Banquet as a part of the ATCA Global Conference and Exposition, which took place on 7-9 November 2022.



International Critical Communications Award for LifeX

Frequentis received the prestigious International Critical Communication Award 2022 in the category “Control Room Innovation” at Critical Communications World international trade fair. The international jury praised the future-proof features of the LifeX multimedia communication solution which is used by safety-critical control centres for handling and switching emergency calls of any kind with radio systems using any technology, enriched with artificial intelligence to increase efficiency.

This award is confirmation of Frequentis’ vision and innovative strength, and the correct assessment of market needs now and in the future.

Frequentis receives silver medal from EcoVadis confirming its sustainable corporate governance

The Frequentis Group is committed to sustainability in all its actions, in accordance with its corporate mission “for a safer world”.

Frequentis was awarded a silver medal in the latest EcoVadis rating, placing it among the top 25 percent of companies evaluated by the world’s largest sustainability ratings provider. Frequentis was rated above the industry average in all four categories - environment, labour and human rights, ethics, and sustainable procurement.





1st place for Frequentis at Vienna Stock Exchange Award in the Mid Cap category

In addition to qualitative criteria such as financial reporting, investor relations, strategy, corporate management, corporate governance, and sustainability, share performance also played a role in obtaining this award. In 2021, the Frequentis share rose by 47.5%, while the main Austrian index ATX gained 38.9%.

“The award of this year’s Vienna Stock Exchange Award fills us with great pride,” commented Norbert Haslacher, CEO of Frequentis. “At the same time, our success shows that investors favour companies with stable business models, such as Frequentis offers, especially in volatile stock market phases. My thanks go to all our employees, whose daily commitment contributes to the success and appreciation of our company on the capital markets.”



Consolidated Corporate Governance Report 2022

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Commitment to the Austrian Code of Corporate Governance

Frequentis is committed to accountable management of the company geared to creating sustainable, long-term value. In keeping with this, Frequentis AG supports the Austrian Code of Corporate Governance, which aims to strengthen the confidence of national and international investors in the Austrian capital market by increasing transparency and establishing uniform principles of good corporate management.

The Austrian Code of Corporate Governance published by the Austrian Working Group for Corporate Governance is generally recognised. The applicable version is publicly available at www.corporate-governance.at and comprises three categories of rules:

- **L rules** (legal requirements), which are based on mandatory legal requirements;
- **C rules** (comply or explain), which have to be followed; to be in compliance with the Code, any deviation has to be explained and the reasons stated; and
- **R rules** (recommendations) since these are recommendations, non-compliance does not require either disclosure or reasons.

Corporate Governance Declaration

Frequentis AG complies with all mandatory L rules and – with the exception of the deviations set forth below – all C rules set out in the Austrian Code of Corporate Governance in the version dated January 2021:

Rule 2

- Under article 5.1.2 of the articles of association of Frequentis AG, the holder of registered share no. 1 with restricted transferability, Mr. Johannes Bardach, is authorised to appoint one third of the maximum number of shareholder representatives on the Supervisory Board (right to appoint Supervisory Board members under Section 88 of the Austrian Companies Act [AktG]). In this respect, the principle of “one share – one vote” is not fulfilled. The company benefits from the commitment, knowledge, and experience of the Supervisory Board members appointed by the majority shareholder, Mr. Johannes Bardach. In all other respects, share no. 1 has the same rights (especially voting and profit-sharing rights) as all other shares. An agreement on the election of a person nominated by B&C Holding Österreich GmbH (“BCHÖ”) as a member of the Supervisory Board of Frequentis AG has been concluded between Frequentis Group Holding GmbH and BCHÖ.

Rule 27

- In the reporting period, there was one old contract with an Executive Board member that had remained in force since the IPO in 2019 and did not provide any way of reclaiming short-term variable remuneration components that had already been granted. However, it was possible to reclaim long-term variable components (LTIP) that had been granted. These provisions of the Austrian Code of Corporate Governance were taken into account when the old contract was extended in the reporting period. Further, long-term variable remuneration components are currently only provided for the Chairman of the Executive Board, because he bears primary responsibility for the long-term corporate strategy.

Rule 39

- The Audit Committee and the Committee for Executive Board Issues do not meet the requirements of C rule no. 39 of the Austrian Code of Corporate Governance as only one of the two shareholder representatives on these committees can be regarded as independent. The two shareholder representatives who are not deemed to be independent are Mr. Johannes Bardach (Committee for Executive Board Issues) and Mr. Reinhold Daxecker (Audit Committee). They have extensive knowledge of the relevant fields and, above all, the Frequentis Group. This is of material importance for the work of these committees, so their appointment represents added value for the committees.
- At present, none of the committees is authorised to take decisions in urgent cases as recommended by C rule no. 39. The company endeavours to obtain the opinion and experience of all Supervisory Board members even in urgent cases. Moreover, given the size of the Supervisory Board, it has so far refrained from setting up a separate committee for urgent decisions; furthermore, this is no longer required by the revised version of the Austrian Code of Corporate Governance applicable as of 2023.

Rule 53

- The Supervisory Board does not fulfil C rule no. 53 as only three of the six shareholder representatives elected by the Annual General Meeting or delegated by the shareholders on the basis of the articles of association are considered to be independent. The shareholder representatives who are not deemed to be independent are Mr. Johannes Bardach (Chairman of the Supervisory Board), Mr. Reinhold Daxecker (member of the Supervisory Board) and Mrs. Sylvia Bardach (member of the Supervisory Board). However, each of these members has extensive expertise that is of material relevance to the work of the Supervisory Board and, above all, a very precise knowledge of the Frequentis Group, so their appointment represents added value for the Supervisory Board.

Executive Board

Members of the Executive Board

In 2022, the Executive Board of Frequentis AG comprised the following members:

Name (Year of birth)	Function	Date of initial appointment	End of current term of office	Supervisory Board or similar offices ¹
Norbert Haslacher (1970)	Chairman of the Executive Board (CEO)	1 April 2015 (member of the Executive Board) 16 April 2018 (Chairman)	15 April 2028	None
Hermann Mattanovich (1960)	Member of the Executive Board (CTO and COO)	1 January 2009	31 December 2024	None
Peter Skerlan (1968)	Member of the Executive Board (CFO)	16 April 2021	15 April 2026	None

¹ Seats on supervisory boards or comparable offices at domestic and foreign companies that are not included in the consolidated financial statements

Norbert Haslacher has been a member of the Executive Board of Frequentis AG since April 2015, originally with responsibility for Sales & Marketing. He was appointed CEO in April 2018. In 2022, the Supervisory Board extended his appointment for a further five years, until 15 April 2028.

Responsibilities: Strategy, Global Sales, Strategic Business Units, Corporate Communications & Marketing, Investor Relations, New Business Development & Invest4Tech, New Market Solutions, Partnerships and M&A.

Norbert Haslacher studied business economics at St. Gallen Business School and has more than two decades' experience of technology solutions, services, and consulting, including as managing director responsible for Austria and Eastern Europe at the US IT company CSC and, before that, as a consultant at Coopers & Lybrand Consulting.

Peter Skerlan has been Chief Financial Officer of Frequentis AG since 16 April 2021. Mr. Skerlan is also administrative managing director of the following Frequentis Group company: Frequentis Invest4Tech (formerly: BlueCall Systems GmbH).

Responsibilities: Finance, Human Resources, IT, Legal, Facility Management, Environment, Social & Governance (ESG), Internal Audit & Compliance.

Peter Skerlan studied corporate management at Vienna University of Applied Sciences and business administration and accounting at the University of London. He joined Frequentis in 1999 as a business area controller. From 2006, Peter Skerlan was Vice President Finance with overall responsibility for financial performance and processes in the Frequentis Group.

Hermann Mattanovich has been Chief Technology Officer of Frequentis AG since January 2009. In addition, Mr. Mattanovich is managing director of the following Frequentis Group companies: Frequentis Czech Republic s.r.o., PDTS GmbH, Mission Embedded GmbH. In 2022, the Supervisory Board extended his appointment for a further two years, until 31 December 2024.

Responsibilities in the reporting period: Technology Management, Production & Logistics, Project Management, Customer Services, Procurement, Information & System Security, Safety Management, Quality Management, Health&Safety and Environment (HSE) Management.

Responsibilities since 1 January 2023: Technology Management, Production & Logistics, Procurement, Product Management, Security.

Hermann Mattanovich studied electrical engineering at Vienna University of Technology and started his career as a technical consultant for companies such as Philips, Elin, VOEST, and Frequentis. He also worked as a lecturer at Vienna University of Technology. In 1988, he co-founded PDTS, a software development company that was later taken over by Frequentis. In addition, between 1999 and 2004 he was responsible for the TETRA development portfolio at Frequentis.

Monika Haselbacher was appointed by the Supervisory Board as an additional member of the Executive Board with effect from 1 January 2023. She strengthens the Executive Board of Frequentis AG in her role as Chief Operating Officer (COO). She was appointed unanimously for a five-year term of office from 1 January 2023 until 31 December 2027. She does not have any seats on supervisory boards or comparable functions at companies that are not included in the consolidated financial statements.

Responsibilities: Project Management & PMO, Customer Services, Health&Safety and Environment (HSE) Management, Group Governance, Processes & Efficiency, Quality Management, Safety Management, Group Management.

Monika Haselbacher studied communications engineering at Vienna University of Technology and has worked for Frequentis since 1998 in various management positions in different departments and Group companies. She was also responsible for the implementation of complex customer projects.

With effect from 1 January 2023, the members of the Executive Board of Frequentis AG are:

Name (Year of birth)	Function	Date of initial appointment	End of current term of office	Supervisory Board or similar offices ¹
Norbert Haslacher (1970)	Chairman of the Executive Board (CEO)	1 April 2015 (member of the Executive Board) 16 April 2018 (Chairman)	15 April 2028	None
Monika Haselbacher (1969)	Member of the Executive Board (COO)	1 January 2023	31 December 2027	None
Hermann Mattanovich (1960)	Member of the Executive Board (CTO)	1 January 2009	31 December 2024	None
Peter Skerlan (1968)	Member of the Executive Board (CFO)	16 April 2021	15 April 2026	None

¹ Seats on supervisory boards or comparable offices at domestic and foreign companies that are not included in the consolidated financial statements

Supervisory Board

Members and independence of the Supervisory Board

In 2022, the Supervisory Board of Frequentis AG comprised the following members:

Name (Year of birth)	Function	Date of initial appointment	End of current term of office	Supervisory Board or similar offices ¹
Johannes Bardach (1952)	Chairman of the Supervisory Board (shareholder representative)	16 April 2018	Indefinite (member delegated pursuant to article 5.1.2 of the articles of association)	None
Karl Michael Millauer (1958)	Deputy Chairman (shareholder representative)	17 July 2007 ²	Until the Annual General Meeting in 2025	None
Boris Nemsic (1957)	Member of the Supervisory Board (shareholder representative)	17 July 2007 ²	Until the Annual General Meeting in 2025	None
Reinhold Daxecker (1970)	Member of the Supervisory Board (shareholder representative)	16 April 2018	Indefinite (member delegated pursuant to article 5.1.2 of the articles of association)	None
Petra Preining (1973)	Member of the Supervisory Board (shareholder representative)	20 September 2019	Until the Annual General Meeting in 2024	None
Sylvia Bardach (1962)	Member of the Supervisory Board (shareholder representative)	20 May 2021	Until the Annual General Meeting in 2026	None
Gabriele Schedl (1968)	Member of the Supervisory Board (employee representative)	1 January 2015	Indefinite (delegated pursuant to Section 110 ArbVG)	None
Reinhard Steidl (1962)	Member of the Supervisory Board (employee representative)	20 September 2019	Indefinite (delegated pursuant to Section 110 ArbVG)	None
Siegfried Meisel (1955)	Member of the Supervisory Board (employee representative)	1 January 2019	31 August 2022	None
Stefan Hackethal (1961)	Member of the Supervisory Board (employee representative)	1 September 2022	Indefinite (delegated pursuant to Section 110 ArbVG)	None

¹ Supervisory Board or similar offices at publicly listed Austrian or foreign companies

² Previously a member of the Supervisory Board of Frequentis GmbH (from 2002), which became Frequentis AG on 17 July 2007

The Supervisory Board's **criteria for independence** are based on the "Guidelines for Independence" set out in the Austrian Code of Corporate Governance, which specify – among other things – that a Supervisory Board member shall not have served as member of the Executive Board or as a management-level staff member at the company in the past five years. Mr. Bardach was Chairman of the Executive Board of Frequentis AG before being appointed to the Supervisory Board in April 2018. Mr. Daxecker held a management position at Frequentis AG before being appointed to the

Supervisory Board in April 2018. Prior to her election to the Supervisory Board in May 2021, Mrs. Bardach was a member of the Executive Board of Frequentis AG. Mr. and Mrs. Bardach and Mr. Daxecker are therefore deemed not to be independent, so C rule no. 53 of the Austrian Code of Corporate Governance is not fulfilled (see [↗ Corporate Governance Declaration](#) in this report). The other members of the Supervisory Board (shareholder representatives) are independent of the company and the members of its governance bodies. Moreover, Mr. Millauer and Mr. Nemsic are independent members of the Supervisory Board; neither hold more than 10% of the company's shares, or represent the interests of such shares.

Apart from the disclosures in the notes to the consolidated financial statements for 2022 [↗ Note 37 Information on business relations with related parties](#), there were no business transactions in 2022 requiring approval pursuant to Section 95 (5) subsection 12 of the Austrian Companies Act or L rule no. 48 of the Austrian Code of Corporate Governance.

Working procedures of the Executive Board and the Supervisory Board and its committees

The **Executive Board** conducts the business of Frequentis AG in accordance with the law, the articles of association, and the rules of procedure issued by the Supervisory Board (the allocation of business responsibilities can be seen from the previous section of this report [↗ Members of the Executive Board](#)). The rules of procedure govern, in particular, reporting to and collaboration with the Supervisory Board and contain an extensive list of business activities that require the consent of the Supervisory Board. The Executive Board holds regular meetings at which it discusses and decides on strategic and operational issues and on other matters of significance for the Frequentis Group or individual parts of the Frequentis Group which fall within the remit of the Executive Board. In addition, the members of the Executive Board constantly share information with each other and with the responsible managers and specialists.

The Executive Board constantly maintains close contact with the Supervisory Board and, in particular, its Chairman, especially on strategic and other fundamental matters relating to the Frequentis Group's business policy. In addition, the Executive Board reports extensively at least once a quarter to the Supervisory Board on the business performance and situation of the Frequentis Group.

The **Supervisory Board** advises and oversees the management of the company by the Executive Board. It held five meetings in 2022. With the exception of one employee representative who was excused from attending one meeting of the Supervisory Board, all members took part in all Supervisory Board meetings in the reporting period. At its meetings, the Supervisory Board openly discussed with the Executive Board the strategic focus, business development, and situation of the Frequentis Group. It also examined in detail the key projects and individual measures and business activities requiring its consent.

In conformance with the statutory requirements and the corresponding rules of the Austrian Code of Corporate Governance, the Supervisory Board has set up the following **committees**:

Committee	Members
Audit Committee	Karl Michael Millauer (Chairman/financial expert) Reinhold Daxecker Gabriele Schedl
Committee for Executive Board Issues	Johannes Bardach (Chairman) Boris Nemsic
Special Committee on Commerzialbank Mattersburg	Karl Michael Millauer (Chairman) Petra Preining Siegfried Meisel (until 31 August 2022) Reinhard Steidl (since 1 September 2022)

The **Audit Committee** has been established in accordance with the provisions of Section 92 (4a) of the Austrian Companies Act. It is responsible, in particular, for the audit and for preparations for adoption of the annual financial statements for the company and the consolidated financial statements, the management report, the corporate governance report, and the proposal for the distribution of the profit. It also puts forward a proposal for election of the auditor for the resolution of the Annual General Meeting. In addition, the Audit Committee performs the preliminary examination of the non-financial report. The Audit Committee held three meetings in 2022. In addition to all committee members, the auditor also attended these meetings.

The **Committee for Executive Board Issues** deals, on the one hand, with matters relating to the relationship between the company and members of the Executive Board, especially the content and conclusion of employment contracts, and on the other hand, with all aspects of succession planning for the Executive Board and the Supervisory Board. Therefore, it combines the typical agendas of a remuneration committee and a nomination committee ("identical committee" as defined in C rule no. 43 of the Austrian Code of Corporate Governance). The Committee for Executive Board Issues held two meetings in 2022. All members attended both meetings.

The **Special Committee on Commerzialbank Mattersburg** was set up by the Supervisory Board to oversee the investigation and appraisal of the internal processes and responsibilities relating to the Commerzialbank Mattersburg case in 2020 and the accompanying revision of the relevant processes and regulations. At present, this special committee is focusing on overseeing the measures being taken to reclaim the company's deposits at Commerzialbank Mattersburg and the related assertion of claims against Commerzialbank Mattersburg and third parties. The committee held two meetings in 2022; all members took part in both meetings.

As already outlined, neither the Audit Committee nor the Committee for Executive Board Issues meets the requirements of C rule no. 39 of the Austrian Code of Corporate Governance because in each case only one of the two shareholder representatives on the committee can be regarded as independent (see section [↗ Members and independence of the Supervisory Board](#) and the [↗ Corporate Governance Declaration](#) in this report). Mr. Bardach and Mr. Daxecker both have extensive knowledge of the relevant fields and, above all, the Frequentis Group. This is of material importance for the work of these committees, so their appointment as committee members represents added value for the committees.

Measures to foster women

Frequentis is committed to equal opportunities for all employees. As a global company, it employs men and women from a wide range of age groups with diverse competencies, different cultural and religious backgrounds, and different sexual orientations. Respecting this diversity is essential for successful collaboration on the company's numerous international projects and is therefore a crucial element in the success of the Frequentis Group. Accordingly, respect, diversity, and inclusion are central values that are taken into account when making appointments to all functions. All personnel decisions, from recruitment and training to remuneration and promotion, are based on suitability, performance, qualifications, integrity, and similar criteria. By contrast, gender, origin, religion, and sexual orientation are not selection criteria.

The percentage of women on the Supervisory Board is 33%. In the reporting period, the Executive Board comprised only men. Since 1 January 2023, the proportion of women on the Executive Board has been 25%. As at 31 December 2022, the percentage of women in the Frequentis Group was around 23%. However, in some regions and organisational units (e.g. in administration) the proportion of women is far higher.

Frequentis would like to increase the percentage of female employees, especially as mixed teams generally perform better and are an important enrichment for the company. However, the proportion of women in technical occupations and companies is generally still comparatively low. Frequentis uses a range of initiatives – cooperation with schools and universities, internal discussion meetings on women and careers, a special mentoring program for women – in an effort to strengthen awareness and help female employees actively shape their careers.

In addition, Frequentis does its best to implement a balance between working and family life. A flexible working time model aligned to the legal requirements in different regions allows personal needs to be taken into account and encourages a good work-life balance. To help staff pursue their personal interests, the company also supports parental and educational leave. Moreover, Frequentis offers a wide range of educational and training opportunities covering both specialist topics and personal development.

Diversity concept

The functions of the Supervisory Board and Executive Board of Frequentis AG should be performed by people with the skills, knowledge, and experience required for the management, oversight, and sustained development of a publicly listed global company operating in a safety-critical environment.

The Supervisory Board of Frequentis AG is firmly convinced that a balanced and diverse mixture of Executive Board and Supervisory Board members plays a significant role in meeting this objective and enhances the effectiveness of the work of these two boards. In particular, diversity should ensure that different perspectives and a range of experience form the basis of business decisions taken by the Executive Board and assessed and overseen by the Supervisory Board.

Against this backdrop, when appointing **Executive Board members**, the primary and overriding criteria for assessing the suitability of potential Executive Board members are the proposed area of responsibility and the candidate's leadership qualities, previous performance, skills acquired, and knowledge of the company.

Appropriate consideration is also given to diversity when selecting suitable candidates for the Executive Board to ensure that the composition of the Executive Board achieves a complementary balance of diverse factors such as education, professional and personal experience (especially in an international setting), age, and gender. To this end, particular attention is paid to the following aspects:

- Each member of the Executive Board should have many years' experience of leadership, especially in an international context, and be familiar with the special nature of the project business and public sector contracts;
- At least one member of the Executive Board should have a technical qualification or many years' experience in a technical profession;
- At least one member of the Executive Board should have an administrative training or many years' experience of working in business administration;
- The Executive Board as a whole should have many years' experience in the fields of software and hardware development, production, project management, international sales, finance, and human resources management;
- In the composition of the Executive Board, attention should be paid to a suitable mixture of ages; consequently, no specific age limits are set for Executive Board members.

The above aspects and criteria for the selection of Executive Board members are not related to the gender of the candidates. Consequently, no specific target is set for the percentage of female Executive Board members. Rather, in the interests of the company, candidates are selected exclusively on the basis of their professional and personal qualifications, in accordance with the selection criteria outlined above.

When putting forward proposals for election to the **Supervisory Board**, with a view to diversity, the Supervisory Board is guided by the following criteria, taking into account the size of the company, the proportion of international business, and the ownership structure:

- The Supervisory Board should comprise shareholder representatives from business, science, technology, or research, who have gained experience in sectors or markets which are of significance for Frequentis' business activities (e.g. in project business and public sector contracts);
- The Supervisory Board should include shareholder representatives with experience of the management and/or oversight of international companies;
- The Supervisory Board as a whole should have appropriate knowledge of the areas of finance, financial statements, accounting, law, compliance, and risk management as well as a basic knowledge of capital market law;
- Attention should be paid to ensuring a suitable mixture of ages on the Supervisory Board; consequently, no specific age limit is set for Supervisory Board members;
- Insofar as there is no statutory requirement, no specific target is set for the percentage of female Supervisory Board members. Rather, in the interests of the company, the proposals submitted to the General Meeting for the election of Supervisory Board members are based exclusively on the professional and personal qualifications of the candidates.

External evaluation in accordance with C rule no. 62

C rule no. 62 of the Austrian Code of Corporate Governance specifies that the company shall have compliance with the C rules of the Code evaluated by an external institution at least every three years. The last evaluation of this type was performed for the 2021 financial year and resulted in a positive report, which can be viewed at [frequentis.com](https://www.frequentis.com) > Investor Relations > Corporate Governance > Corporate Governance Reports.

Vienna, 13 March 2023

Consolidated Non-Financial Report 2022

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Foreword by the Executive Board

Sustainability as an opportunity for future development

GRI 2-22

Corporate social responsibility and sustainability are values that the Frequentis Group has been committed to in all its activities for many years. Evidence includes the fact that this is the Frequentis Group's fourth non-financial report and the silver rating awarded by the EcoVadis agency, which rates more than 100,000 companies, making it one of the biggest providers of sustainability ratings of companies.

Our sustainable management approach supported us well through the challenges of 2022. Constant tough developments such as the pandemic, which still had a noticeable impact in the reporting period, and geopolitical crises such as the war in Ukraine caused uncertainty at many levels. That made the achievements of the Frequentis team even more impressive – and they were rewarded by the market, as shown by the positive figures for 2022.

In the area of sustainability, in 2022 we focused on building up our ESG (environment – social – governance) organisation and driving forward professional ESG reporting. Established Frequentis ESG activities were combined in a powerful ESG organisation. As well as developing and introducing new ESG concepts, the goal is to roll out our activities across the Frequentis Group and implement Group-wide key performance indicators (KPIs) for ESG.

This report is based on Directive 2014/95/EU as regards disclosure of non-financial and diversity information (CSR Directive). Further, it was prepared with reference to the Global Reporting Initiative (GRI, an international guideline for the preparation of sustainability reports) as recommended in the EU Directive. For the sustainable orientation of the company, we also observe the United Nations Sustainable Development Goals ([↗ SDGs](#)).

For the first time, the chapter on the EU Taxonomy Regulation in the non-financial report 2022 includes the alignment test using the technical screening criteria. In this way, Frequentis AG complies with the requirement to disclose its environmentally sustainable economic activities.

The Frequentis Group's communication and information systems have been helping to make the world a safer place for more than 75 years. The award of the EcoVadis silver medal in our anniversary year provides both recognition of our sustainability performance and an incentive for our activities in this field. Compared with the previous year's rating, when we received the bronze medal, we improved in all areas and are now above the average for our sector.

That also paves the way for the future: we strive to improve all aspects of our social and ecological performance throughout the Group, fulfil our compliance obligations, and actively work towards sustainable development. Since 1 January 2023, we have been supported in this by an additional member of the Executive Board: as Chief Operating Officer (COO), Monika Haselbacher will help shape significant ESG aspects such as HSE (Health & Safety and Environment). CFO Peter Skerlan remains the highest executive-level ESG representative.

For a Safer World: Safe – Secure – Sustainable!



Norbert Haslacher
Chairman
of the Executive Board



Monika Haselbacher
Member
of the Executive Board



Hermann Mattanovich
Member
of the Executive Board



Peter Skerlan
Member
of the Executive Board

About this report

GRI 2-3
GRI 2-4

In keeping with its mission “for a safer world”, the Frequentis Group is committed to sustainability in everything it does. Appropriate initiatives are implemented locally in conformance with local law. The reporting period covered by this non-financial report is 2022 (publication date: 12 April 2023). The non-financial report on 2021 was published on 5 April 2022. In the Group Management Report on the first half of 2022, the presentation of the number of employees was altered compared with the previous year to full-time equivalents (FTE). This reflects the increasing use of part-time working. In the non-financial report 2022, the number of employees is also given as a headcount because all employee-related performance indicators refer to the number of individual employees. There have been no other changes in presentation.

The basis for the content of this annual non-financial report and the level of detail is the Austrian Sustainability and Diversity Improvement Act (NaDiVeG), which was published in 2017 in the Austrian Federal Law Gazette (Bundesgesetzblatt) and transposes the European Union’s Non-Financial Information (NFI) Directive (2014/95/EU) into Austrian law. This consolidated report was prepared in all material respects in conformance with the legal requirements of the Austrian Sustainability and Diversity Improvement Act (Sections 243b and 267a Austrian Commercial Code [UGB]) and meets the requirements set out in Section 243b UGB for the individual financial statements of Frequentis AG and Section 267a UGB for the consolidated financial statements. The materiality analysis, risks, and the concepts developed also apply for both Frequentis AG and the Frequentis Group.

This is the fourth non-financial report of the Frequentis Group. It was prepared on the basis of the materiality analysis performed in November 2021. By extending the content and technical aspects of the materiality analysis ([➤ Materiality analysis 2021](#)), Frequentis aims to make a clear statement. The topics considered are being integrated step by step into established management systems to emphasise their global significance.

This report was prepared on the basis of the GRI (Global Reporting Initiative) Standards 2022. Greater attention has been paid to using these as a guide for the key performance indicators and management approaches. The objective of this is to continuously enhance the quality of the report and enable all stakeholders to obtain an objective and transparent overview of the company and the actions taken in the past year. Data that are already compiled and evaluated with reference to the GRI Standards are indicated by stating the applicable GRI Standards in the margin and are listed in the overview in the appendix to this report ([➤ GRI content index](#)).

In addition to representative initiatives and relevant disclosures, this report includes topics that have had a significant influence on the company’s business activities, together with their social and ecological impact.

Frequentis is committed to continuously improving its social and ecological performance in all aspects, fulfilling its compliance obligations, and actively working towards sustainable development. Topics such as the SDGs (sustainable development goals), respecting human rights, improving working conditions, fair operating and business practices, consumer concerns, the involvement and development of society, developing the supply chain, and sustainable product development and use of resources will be taken into account in the selection of future measures.

Assurance review

The non-financial report was the subject of a limited assurance review by the audit and tax consultancy BDO Assurance GmbH. The basis for this review was the Austrian Sustainability and Diversity Improvement Act (NaDiVeG). This report was reviewed by Frequentis' Supervisory Board in accordance with Section 96 (1) of the Austrian Companies Act (AktG) ([↗ Report on the independent audit with limited assurance of the consolidated non-financial report](#)).

GRI 2-5

The consolidated group on which this report is based is the same as for the financial reporting ([↗ Annual report / Consolidated financial statements / Consolidated group](#)). Besides Frequentis AG, which is the parent company, the consolidated group comprises 6 (2021: 6) domestic subsidiaries and 28 (2021: 26) foreign subsidiaries controlled by Frequentis AG. 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. 7 (2021: 3) foreign companies and 2 (2021: 2) domestic companies are included in the consolidated financial statements by applying the equity method. The reporting date for all companies included in the financial statements is 31 December.

GRI 2-2

If any information applies only to Frequentis AG or to a selected group of consolidated companies, this is specifically stated. The risk assessment meets the requirements of the Austrian Sustainability and Diversity Improvement Act (NaDiVeG).

To avoid redundancy, where appropriate the report refers to the notes to the consolidated financial statements for 2022 ("consolidated financial statements"), the Group management report ("management report"), the consolidated corporate governance report for 2022, or the profile of the company. References within this report are indicated by an arrow [↗](#) followed by the title of the section *in italics*.

Contact

GRI 2-3

If you have any questions about this report, please contact Brigitte Gschiegl, ESG Group Coordinator; ESG-Team@frequentis.com.

Company profile

GRI 2-1
GRI 2-6

Frequentis AG, which is based in Vienna, Austria, is a global provider of communication and information systems for control centres that perform safety-critical tasks. It develops and markets its “control centre solutions” in the Air Traffic Management segment (civil and military air traffic control, AIM [aeronautical information management], air defence) and the Public Safety & Transport segment (police, fire service, emergency rescue services, railways, coastguards, port authorities).

The primary objective of a control centre is to protect people and property from danger. Optimised solutions for this are especially important to customers operating in safety-critical sectors. More than 90% of customers are state-run or other public authorities. Customer requirements often include requests for even more efficient and sustainable solutions and the need to adapt quickly to constantly changing conditions. That increases the demand for integrated solutions. A human-centred design process enables the provision of a secure, efficient, and stable working environment for controllers, operators, and dispatchers.

As a global group of companies, Frequentis has an international network of companies and local representatives in more than 50 countries. In addition to its headquarters in Vienna, Austria, Frequentis’ locations include Australia, Brazil, Canada, the Czech Republic, France, Germany, Italy, Norway, Romania, Singapore, Slovakia, Switzerland, the UK, and the USA.

For further information, see [➔ Annual report / Consolidated financial statements / Consolidated group.](#)

The chart below shows the Group companies around the world, together with their main activities.

FREQUENTIS AG, Austria			
Regional Sales & Operations	Products, Sales & Operations	Group Services	Special Purpose or Minority Shareholdings
Europe	Frequentis Deutschland, Germany	ATRICS, Germany, 51%	Frequentis Czech Republic
	Frequentis France	CNS-Solutions & Support, Austria	Frequentis Romania
	Frequentis Norway	ELARA Leitstellentechnik, Germany, 51%	Frequentis Solutions & Services, Slovakia
	Frequentis UK	Frequentis Comsoft, Germany	PDTS, Austria
	Frequentis Orthogon, Germany		AIRlabs Austria, 18%
	Regola, Italy, 51%		Aviamaps, Finland, 25%
			Frequentis DFS Aerosense, Austria, 70%
			Frequentis Invest4Tech, Austria
			GroupEAD Europe, Spain, 28%
			Mission Embedded, Austria, 20%
			Nemergent Solutions, Spain, 15%
			Secure Service Provision, Germany, 80%
			Systems Interface, UK, 51%
			team Technology Management, Austria, 51%
Australia/Asia	Frequentis Australasia, Australia	C4i, Australia	AIRNAV Technology Services, Philippines, 65%
	Frequentis Middle East, UAE		
	Frequentis Shanghai, China		
	Frequentis Singapore		
Americas	Frequentis Brazil	Frequentis California, USA	
	Frequentis Canada		
	Frequentis Defense, USA		
	Frequentis USA		

Simplified visualisation; all shareholdings 100% unless otherwise stated. Company names abbreviated. As at March 2023.

Frequentis' products and solutions are in use at more than 45,000 working positions in around 150 countries. Founded in 1947, Frequentis estimates that it is the world market leader in voice communication systems for air traffic control with a market share of 30%. The Frequentis Group's systems are also global leaders in AIM (aeronautical information management) and aeronautical message handling, as well as in GSM-R systems for railways.

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

In September, Frequentis acquired a 25% stake in the Finnish software producer Aviamaps Oy. This company's software enables users of its platform to book drone flights directly in the internet by clicking on a map (real-time aviation maps platform). This platform is a user-friendly flight planning and airspace management tool. In 2023, Aviamaps' software will be integrated into the Frequentis solution for automatic approval of drone flights in Austria. Frequentis has worked with this company on drone research projects in the past.

Seven acquisitions have been made since the Frequentis IPO in May 2019. Frequentis' strategy includes searching proactively for attractive M&A opportunities to extend its product portfolio or gain access to new markets.

In 2022, the Frequentis Group generated revenues of EUR 386.0 million (2021: EUR 333.5 million) and EBIT of EUR 25.0 million (2021: EUR 29.0 million). The Air Traffic Management segment accounted for 67% of Group revenues in 2022 (2021: 66%) and the Public Safety & Transport segment accounted for 33% (2021: 34%). Looking at the regional revenue split, in 2022 Europe accounted for 65% (2021: 68%), the Americas for 16% (2021: 15%), Asia for 12% (2021: 9%), Australia/Pacific for 5% (2021: 5%), and Africa for 2% (2021: 2%). Less than 1% (2021: 1%) of revenues were not allocated to a region.

GRI 2-6

Since increasing use is being made of opportunities to work part-time, the Group management report states the number of employees as full-time equivalents (FTEs). This development reflects the trend on the labour market, where the offer of part-time employment is increasing. Including the additional personnel from the acquisition of Regola, the number of employees in the Frequentis Group increased by 7.4% to an average of 2,081 full-time equivalents (2021: 1,937). In the non-financial report for 2022, the number of employees is supplemented by data on the headcount, because all employee-related indicators refer to the number of individuals employed. The headcount was 2,193 in 2022, compared with 2,157 in 2021.

GRI 2-7

Since May 2019, shares in Frequentis AG have been listed on the prime market at the Vienna Stock Exchange and the General Standard on the Frankfurt Stock Exchange, with the ticker symbol FQT (ISIN: ATFREQUENT09). The core shareholder is Johannes Bardach. He holds around 68% of the shares (about 8% directly and about 60% indirectly through Frequentis Group Holding GmbH). B&C Holding Österreich GmbH holds more than 10% of the shares. The free float is approximately 22%, mainly investors from Germany, Austria, and other European countries. For further information, see [➤ Annual report / The company](#), [➤ Annual report / The share](#).

GRI 2-1

Details of suppliers can be found in the section [➤ Selection of suppliers](#).

Segment overview

GRI 2-6

Air Traffic Management

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. The safety and quality management requirements are the same: the international regulations for standardisation of air traffic issued by the International Civil Aviation Organization (ICAO) apply. Moreover, the infrastructure to be installed for customers (radar, radio transmission, networks) is similar.

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

Public Safety & Transport

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

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

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

Business model

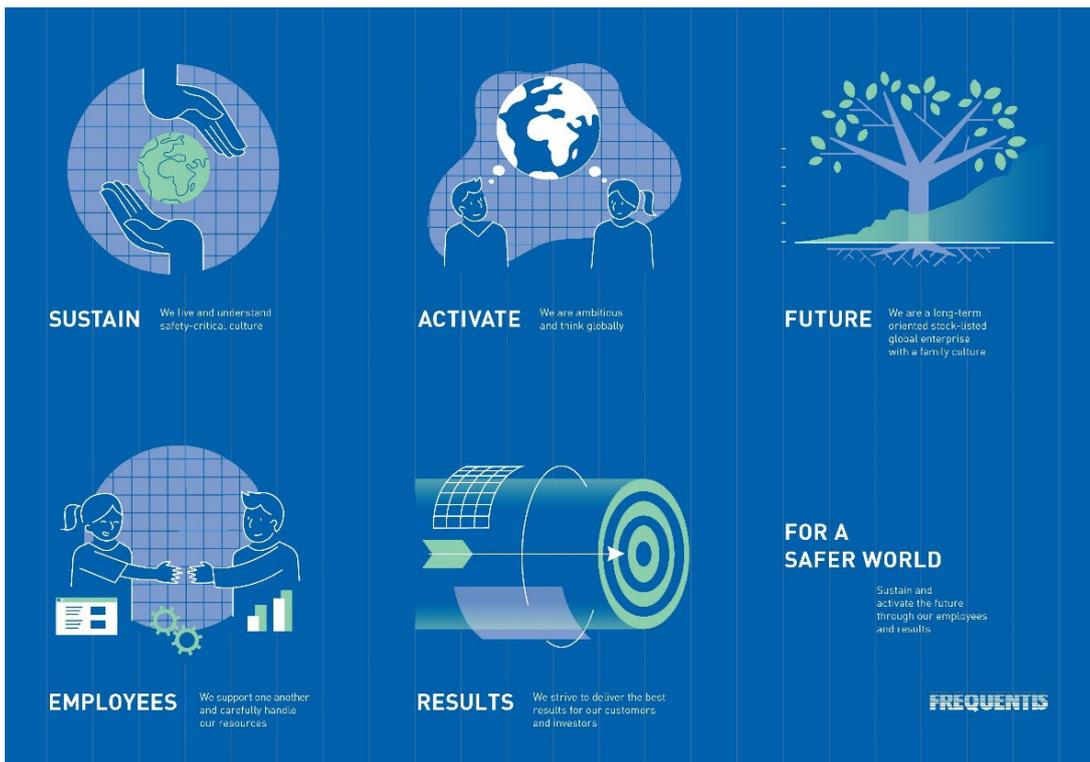
Wherever Frequentis' systems are used, people bear responsibility for the safety of other people and goods. The Frequentis Group is an international provider of communication and information systems for safety-critical control centres. Custom-tailored control centre solutions are developed and marketed by the Air Traffic Management segment (for civil and military air traffic control, AIM [aeronautical information management], and air defence) and the Public Safety & Transport segment (police, fire service, emergency rescue services, coastguards, port authorities, and railways). As a recognised specialist for the supply of safety-critical infrastructure, Frequentis develops future-oriented solutions for control centres in collaboration with key customers and makes new technologies usable for safety-critical applications.

The robustness of Frequentis' business model is supported by the fact that the products it supplies are part of the countries' safety-critical infrastructure. This infrastructure has to be available and ready for operation at all times – irrespective of the number of flights / flight movements or how often the police, fire service, and emergency rescue services are deployed. It is difficult to halt investment in safety-critical infrastructure. Consequently, with some adjustments to take account of the situation, even during the COVID-19 pandemic it was possible to continue most business processes without significant changes or restrictions.

Moreover, the central focus is on long-term customer relationships. Customers – public authorities, organisations, and companies with safety-critical tasks – often use the solutions provided for several decades. That requires a deep understanding of the customer's requirements, maximum reliability, and long-term trust. The extensive installed base also drives the steady and sustained growth of the Frequentis Group.

The Frequentis Group's sustainable growth strategy, accompanied by active risk management, is embedded in its corporate strategy. Furthermore, sustainability aspects are being taken into account in the further development of the corporate culture, which started in 2022. Aspects being addressed include increasing internationalisation and, in this context, global sustainability endeavours.

GRI 2-22



ESG at Frequentis

ESG organisation

GRI 2-9
GRI 2-11
GRI 2-12
GRI 2-13
GRI 2-24

To enhance the response to the broadly based environmental, social, and governance aspects and improve their presentation to stakeholders, at the start of 2022 Frequentis pooled its expertise in these three areas in a Group-wide ESG organisation. As a representative of the Executive Board, CFO Peter Skerlan bears executive-level responsibility for ESG topics. This has been defined by the Supervisory Board in the rules of procedure for the Executive Board of Frequentis AG.



This interdisciplinary ESG team is coordinated by an ESG Steering Group, which involves and works closely with the Executive Board. Alongside the CFO as the representative of the Executive Board, the members of the ESG Steering Group are the staff responsible for environmental, social, governance, and compliance aspects and the ESG Group Coordinator. Specific projects are analysed, prioritised, and driven forward at a monthly jour fixe. Current sustainability measures are examined and modified jointly, and new sustainability projects are initiated as necessary. At the annual ESG management review led by the CFO, the past year’s ESG activities and indicators are discussed and the action to be taken to achieve the targets is defined.

GRI 2-17

The CFO and the members of the ESG Steering Group regularly attend specialist congresses and events to network with experts and enhance their knowledge. Reading relevant literature is also very important. The knowledge gained in this way is shared widely within Frequentis. This ensures that the company always has up-to-date knowledge of the fast-changing fields of sustainability and ESG reporting.

GRI 2-14

The ESG team maintains regular contact with Frequentis’ shareholders. Impetus also comes from employees via the “Ideas” platform and from events that encourage an exchange of views such as the CFO Talks. In this way, ESG initiatives should provide opportunities for the continued development of the entire Frequentis Group.

The Global Corporate Policy and the governance rules it contains are based, among other things, on the defined ESG objectives and support their realisation. This is guided by the outcome of the materiality analysis. The most recent materiality analysis was performed in November 2021.

All measures are supported by the Executive Board and the Supervisory Board as the highest governance body and the Supervisory Board regularly addresses aspects of ESG. The non-financial report is examined and approved by the Executive Board and the Supervisory Board.

GRI 2-18

Materiality analysis 2021

The materiality analysis undertaken in 2021 is the starting point for the non-financial report 2022. The structure of the report is therefore based on the four sections of the materiality analysis, which contain a total of 21 sustainability topics:

GRI 3-2

- Social and employee matters
- Environmental matters
- Human rights, compliance, anti-corruption
- Safety, security & data protection

One major area of focus was an extended stakeholder survey covering a total of 2,609 people:

GRI 3-1

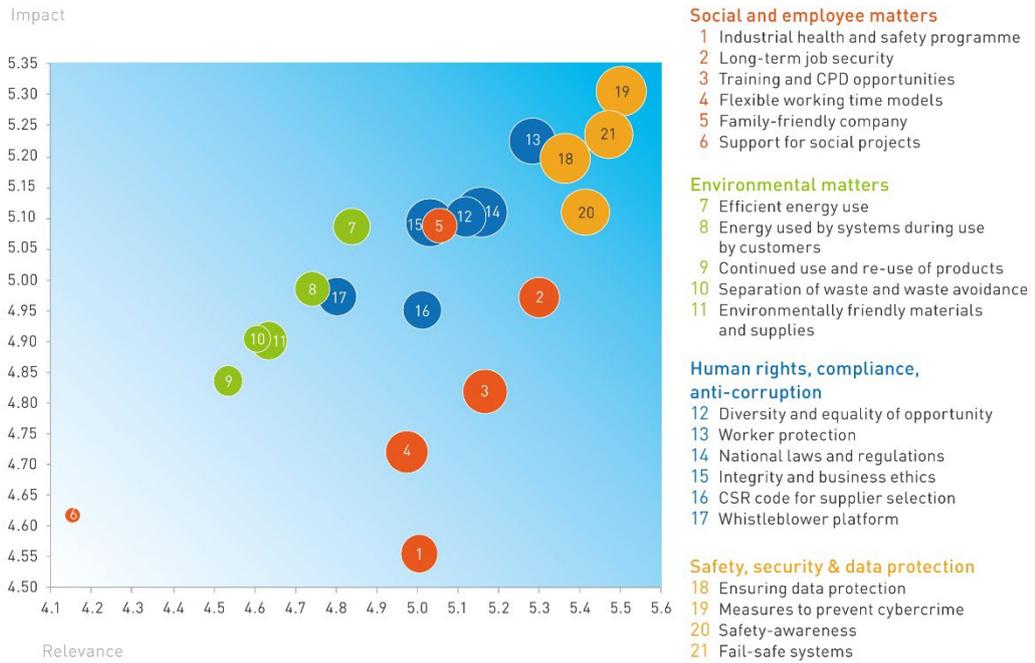
- Employees and prospective employees
- Customers
- Shareholders/capital market representatives
- Suppliers

Plus, as a further stakeholder group:

- Top management

These stakeholders were asked to give their assessment of the relevance of the various aspects (shown on the x axis in the following chart). The y axis shows their assessment of the impact of the various activities on society, the economy, and/or the environment. The size of the bubbles shows the top management's assessment of the relevance of each activity for the business, taking into consideration both quantitative and qualitative aspects.

GRI 3-2



The overview of the 21 statements used in the questionnaire shows that the topics from the areas of safety, security & data protection, and human rights, compliance, anti-corruption are considered to be particularly relevant. In the other two areas, the aspects “family-friendly company” and “efficient energy use” received high ratings.

Continuous dialogue with stakeholders

GRI 2-29
GRI 3-1

Active engagement with internal and external stakeholders and the corresponding reporting remains important to Frequentis.

Regular dialogue with stakeholders plays a key role in this. Once again, extensive use was made of digital platforms. Communication with the capital market, investors, and the media – at roadshows, conferences, the Annual General Meeting, an open day for investors, and press meetings – generally took the form of video conferences. Many user groups, workshops with customers, and training sessions also took place virtually. However, personal contact gradually gained significance again, especially at the many international trade shows.

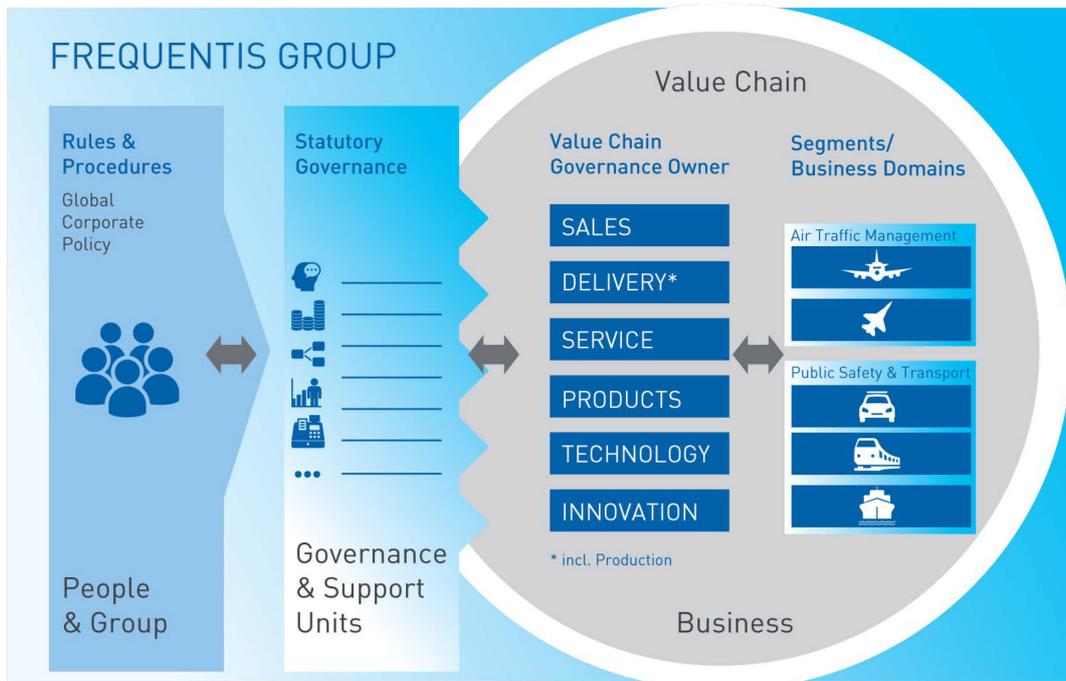
GRI 2-26

The Frequentis intranet, with its wide range of information and opportunities for interaction, plays a key role in the dialogue with employees. Staff can submit suggested improvements with a focus on sustainability via an “Ideas” platform. The Executive Board takes questions from staff at Board Chats. In addition, employees can put questions directly to the Executive Board anonymously. The employee magazine Frequente, which is published three times a year, includes insight reports from the companies in the Frequentis Group.

GRI 2-16

The whistleblower service, which was introduced in December 2021, is available via the Frequentis website at www.frequentis.com/whistleblowing. This offers all internal and external stakeholders a simple and anonymous way to report suspicions of misconduct.

Governance organisation



GRI 2-9
GRI 2-24

Frequentis' business model is based on a strong governance organisation that ensures optimised interaction between the central units, the business domains, and the international subsidiaries.

Frequentis' two segments and the business domains grouped in these segments focus on successful business operations as their contribution to the Group's overall performance. The main responsibility is allocated to local value-generating functions such as Domain Sales, Key Accounts, Product Management, and Project Management. As an integral part of the value chain, the subsidiaries and equity investments make a significant contribution to the overall success of the Frequentis Group.

Innovations have very high priority at Frequentis. The company is proud to extend its position as an innovation leader in the market it addresses through sustainable innovations. Innovations are highly relevant for the business and are driven forward by a strong New Business Development department. At all stages in the Frequentis innovation process, close and interdisciplinary collaboration with the business domains is ensured.

The role of the central Governance & Support units (which include, for example, Human Resources, IT, Finance & Controlling, Legal, ...) is to ensure smooth global collaboration. These functions focus on supporting the business, minimising risks, optimising workflows, and maintaining a general overview of the company.

People & Group covers units/tasks that are mandatory but do not have a direct impact on the value chain. They are defined in the rules and procedures of the Frequentis Group.

The Global Corporate Policy, which applies to all companies that are majority-owned by Frequentis AG, contains all regulations and mechanisms for documenting and communicating necessary changes in individual governance units and how they interact. The policy is reviewed at regular intervals and is therefore continuously improved and updated.

Management system

GRI 2-23
GRI 403-1

Frequentis' integrated management system forms the basis for sustainable optimisation of services and results in compliance with the requirements of internationally recognised standards:

- Quality management (ISO 9001:2015)
- Environmental management (ISO 14001:2015)
- Information security (ISO 27001:2013)
- Occupational health and safety (ISO 45001:2018)

On the one hand, the defined processes guarantee the quality of Frequentis' products and services. On the other hand, they support efficient collaboration and the use of synergies in the Frequentis Group.

Internal audits are used to check that the processes are applied and complied with. Certified sites are regularly audited by accredited certification organisations.

The table shows the initial certification dates (taking into consideration any predecessor legal entities):

	ISO 9001	ISO 14001	ISO 27001	ISO 45001	AEO	Cyber Essentials
Frequentis AG, Austria	1993	2005	2011	2005	2008	2016
ATRICs Advanced Traffic Solutions GmbH, Germany	2010					
C4i Pty Ltd., Australia	1993					
CNS-Solutions & Support GmbH, Austria	2016		2016			
Frequentis (Shanghai) Co. Ltd., China	2014					
Frequentis Australasia Pty Ltd., Australia	2012	2018	2011	2019		
Frequentis California Inc., USA	2000					
Frequentis Canada ATM Limited	2010					
Frequentis Canada Limited	2008	2009		2009		
Frequentis Comsoft GmbH, Germany	1993		2018			
Frequentis Czech Republic s.r.o.	2011					
Frequentis Deutschland GmbH, Germany	1998		2011			
Frequentis do Brasil Assessoria, Serviços e Comércio de Sistemas de Informação e Comunicação Ltda., Brazil	2019					
Frequentis Orthogon GmbH, Germany	2005					
Frequentis Romania S.R.L.	2010					
Frequentis Solutions & Services s. r. o., Slovakia	1997		2018			
Frequentis UK Ltd.	2015		2011			2016
Frequentis USA Inc.	2003		2011			
PDTS GmbH, Austria	2000					

	ISO 9001	ISO 14001	ISO 27001	ISO 45001	AEO	Cyber Essentials
Regola S.r.l., Italy	2014		2016			
Secure Service Provision GmbH (SSP), Germany	2021					
Systems Interface Ltd., UK	2018					
TEAM Technology Management GmbH, Germany	2020					
team Technology Management GmbH, Austria	2004					

In 2022, the accredited external certification organisation performed an extensive re-certification audit of Frequentis' headquarters for ISO 9001, ISO 14001, ISO 27001, and ISO 45001. Conformance with the requirements without any deviations was confirmed, so the validity of the relevant certificates was extended.

Extending the ISO certificates to further subsidiaries is constantly evaluated, as is whether it makes sense to obtain further relevant certificates.

In addition, all members of the Group are required to comply with the corporate governance rules to ensure that operating processes can be applied throughout the organisation.

Sector initiatives and membership of organisations

Frequentis AG and its employees play an active role in many associations, institutions, and advocacy organisations. Various platforms are used, depending on the business domain and governance issues. The purpose is to promote professional knowledge-sharing, structure content through committees, and play an active part in shaping national and international standards.

GRI 2-28

Examples are membership of national and international sector networks such as CANSO (Civil Air Navigation Services Organisation), CIRM (Comité International Radio-Maritime), the Austrian rail industry association Verband der Bahnindustrie Österreich, and TCCA (The TETRA + Critical Communication Association). In addition, Frequentis is actively involved in standardisation bodies such as EENA (European Emergency Number Association). Frequentis' international network is complemented by cooperations and memberships in the field of research and partnerships with various technical universities.

In the ESG context and from the perspective of the operating business, special mention should be made of Frequentis' membership of ISSS (International System Safety Society) and networking with international communities in the field of security ([↗ Security](#)).

In 2022, Frequentis became a member of Austria's leading corporate sustainability platform, respACT. As one of more than 360 members of the respACT network, Frequentis aims to make a contribution to sustainable development both in Austria and internationally. Through its entry in the Austrian CSR Guide, the Frequentis Group highlights its ESG performance.

Furthermore, Frequentis regularly takes part in various voluntary CSR ratings conducted by a variety of institutions from different perspectives (customers, investors). This also involves extensive interchange about the Group's sustainability activities.

Impact of global events

This section provides an overview of the impact of global events on the company in 2022 in the context of non-financial reporting. The economic effects are set out in the Group management report ([↗ Business performance](#)). The comments below indicate how these global factors impacted or are impacting Frequentis' internal and external stakeholders.

Impact of the geopolitical situation

Almost concurrently with the weakening of the COVID-19 pandemic, war broke out in Ukraine in Eastern Europe. As well as causing immense local suffering, this affected Frequentis' internal and external stakeholders in many ways.

The war in Ukraine did not have a relevant impact on Frequentis' revenues because total revenues generated with Ukraine, Russia, and Belarus in 2022 were less than EUR 100 thousand. Indirectly, it resulted in higher prices, especially for electricity, gas, and fuels. Consequently, prices of other everyday products increased, so inflation increased sharply almost everywhere in the world and was well above the average of recent years. This resulted in the need to adjust prices for existing and new customer projects. The inflation-related salary adjustments under individual and collective salary agreements are reflected in the Frequentis Group's personnel expenses in both 2022 and 2023.

Frequentis was affected to some extent by supply chain bottlenecks and, in some cases, sharp increases in procurement prices and delivery delays. The increase in inventories was mainly due to increased stocking of components to ensure an adequate safety net to meet long-standing delivery and maintenance obligations despite the withdrawal of products by producers and supply bottlenecks.

Impact of the COVID-19 pandemic

From March 2020, Frequentis had an interdisciplinary coronavirus crisis team, which was composed of representatives of relevant departments and headed by the Chairman of the Executive Board. The crisis team met at regular intervals, depending on the course of the pandemic, to evaluate the situation and define the action to be taken.

The measures were scaled back from early summer 2022 as the pandemic subsided, but some general precautions such as mandatory testing of participants at large meetings remained in place until the end of the year.

The principal areas of action that enabled Frequentis to navigate the COVID-19 pandemic well were health & safety and facility management, plus increased use of digital technologies, both internally and with customers and partners.

Customers' strong confidence in Frequentis was a key factor in this, their flexibility and creativity supported the ability to find good solutions. Despite the ongoing travel restrictions, it was therefore possible to continue to work on projects remotely (via video conferences) and even perform acceptance procedures.

Frequentis' corporate culture permitted mobile working practices even before the pandemic (working from home or on-site at customers' premises), so both employees and the existing IT infrastructure handled the extensive shift to working from home very well.

Experience during the pandemic provided some key lessons that can be used for Frequentis' long-term sustainable development. The findings and experience include important impetus for more extensive use of digital opportunities such as modifying processes and tools to optimise remote working and to drive forward product innovations.

Social and employee matters

GRI 2-7

Employees are the most important factor for the achievement of Frequentis' corporate objectives and its international growth. Their commitment and dedication, and the innovative capability of multi-cultural teams are the foundations on which Frequentis has built around 40 years of profitable growth and give the company key competitive advantages on the international market.

About 75% of Frequentis' employees are highly qualified engineers and specialists. Their broad and deep specialist knowledge and their extensive practical focus on customer and market needs are widely appreciated. As a high-tech company, Frequentis employs both young, highly trained university graduates and staff with practical experience. It offers them all an attractive working environment characterised by continuity and sustainability. The long-term stability of teams is crucial for customer confidence. Therefore, stability and continuity are key corporate values. Consequently, Frequentis endeavours to provide lasting job security.

In 2022, recruitment of new employees once again concentrated on technical staff. In addition to system engineers, there was particularly high demand for software engineers, project managers, and IT and sales staff. The company gives high priority to a thorough and exhaustive recruiting process. Alongside professional qualifications, Frequentis looks for an understanding of its business and its specific safety-critical culture.

Certain functions where there are frequent recruiting requirements, especially in technical areas where filling vacancies is difficult, have been defined as key functions in order to draw particular attention to them. In these functions a specific salary progression is defined in the employment contract for university graduates. This underscores the importance of these functions and gives young employees, in particular, a perspective, which enhances employee retention.

To ensure uniform, transparent, and fair remuneration, the salaries of all employees are reviewed annually by the responsible managers and, in some cases, the relevant committees and governance bodies by comparing them with the statutory requirements and external benchmarks to check that they meet the minimum requirements and market conditions. Salaries are reassessed in the regular pay rise process. The Austrian collective bargaining agreement for employees in the metalworking sector applies to all employees of Frequentis AG.

GRI 2-30

GRI 405-2

Every two years, a mandatory income report is prepared in accordance with Section 11a of the Austrian Equal Treatment Act (GlBG). This report contains information on the number of men and women in each salary grade and the number of years in the salary grade, along with corresponding average salaries of men and women in the calendar year. This anonymised report is submitted to the workers' council of Frequentis AG, which communicates the findings to the company's employees at the annual works meeting.

In 2022, the recruiting team in Vienna received 2,952 job applications and held 505 interviews. Most first interviews were conducted virtually; second interviews were held in person.

In the "Best Recruiters" study 2021/22, Frequentis AG was awarded the silver seal in the IT/software/telecommunications sector for its professional HR approach. The results of the Best Recruiters' study, the largest recruiting study in the German-speaking regions, are an important benchmark and provide guidance for the ongoing development of Frequentis' recruiting and employer branding activities.

The “Bringing a friend counts” incentive scheme has proven effective. In 2022, more than 13% of total job applications were due to recommendations by our employees.

In autumn 2022, we relaunched our careers website <https://www.frequentis.com/en/careers>. Information of special interest to prospective employees, for example on development prospects, insights into the corporate culture, and important job profiles, was revised with a view to search engine optimisation and to make it user-friendly. The options for applying directly were simplified. The hashtag #JobsForASaferWorld should enhance visibility in the future.

Since the start of the coronavirus pandemic, the Human Resources department at Frequentis has systematically extended the digitalisation and virtualisation of its learning and development activities. For instance, the rollout of the O’Reilly Online Learning Platform provides Group-wide access to a wide range of videos, audio books, and e-books on technical and IT subjects.

The Frequentis Group’s headcount increased from an average of 2,157 in 2021 to 2,193 in 2022. Almost 50% of employees work in Vienna. The increase in the headcount was therefore 1.7%. Expressed as FTE’s, the average number of employees in the Frequentis Group rose by 7.4% to an average of 2,081.

Occupational health and safety

The long-term nature of Frequentis’ business relationships and the extensive periods for which its systems are used by customers require special action to secure the know-how and stability of project teams. Alongside a range of employee retention measures, there is an extensive occupational health and safety programme, including measures to prevent accidents at work and preventive health measures to enhance the long-term well-being and job satisfaction of Frequentis staff.

To create an attractive working environment for present and future employees, work has to be shaped to ensure that it does not entail excessive physical or mental strain. The occupational health and safety team at Frequentis AG comprises a medical officer, a psychologist, an external female safety specialist, an internal male safety specialist, and an eight-member team of safety officers from various areas of the company. The aim is to ensure that hazards and inappropriate workloads are viewed from different angles so they can be avoided in the future.

GRI 403-1
GRI 403-2
GRI 403-3

To ensure a safe working environment, risks, hazards, and problems are viewed from different perspectives. Alongside measures to prevent work-related accidents, occupational illness, and excessive stress, methods and possibilities are made available in case the preventive measures fail or accidents happen.

A wide-ranging first responder organisation has been put in place. As well as extensive first-aid equipment, first aiders and paramedics are available. In addition, there are defibrillators for use by anyone and special rinsing equipment for accidents involving chemicals. Special training on their use is provided.

To prevent work-related accidents and injuries involving tools and machinery, every new machine and piece of equipment is analysed in advance by the safety specialist and any necessary measures are implemented. Attention is paid to correct use of any necessary personal protective equipment (PPE). To increase acceptance and thus the use of PPE, wherever possible employees are consulted when purchasing new PPE.

All chemicals used at Frequentis AG are managed using a tool provided by the Austrian accident insurer AUVA. In accordance with the STOP principle (risk avoidance and hazard prevention at source, as defined in Austrian worker protection legislation), as a first step particularly hazardous materials and all new materials are analysed for scope for substitution. Technical and organisational measures required for safe use and storage of chemicals are then implemented. Any remaining danger is kept away from the employees by the use of the right PPE.

To ensure continuous improvement of these measures, identify risks that had not previously been detected, check the implementation and effectiveness of the measures defined, and maintain acceptance among the workforce, regularly inspections are performed by the safety specialists. The safety specialists and safety officers are very visible in the company and employees can contact them confidentially at any time.

GRI 403-5

The training and CPD (continuing professional development) programme includes a wide range of free health and safety offerings. As well as mandatory safety training, for example on working at heights and the regular refresher courses required under Section 14 of the Austrian Occupational Safety Act, there is a wide choice of optional topics, including occupational psychology. In 2022, the focal areas were once again resilience (mental toughness), stress management, and burnout prevention. Regular refresher courses are held for first responders.

Preventive healthcare

GRI 403-6

As a responsible employer, Frequentis has a genuine desire to actively foster the health of its employees. Vaccinations (e.g. influenza, FSME) and specific supplementary measures such as heart check days, lung function tests, eye tests, and vein checks are offered annually to staff at the Vienna location as part of the company's occupational healthcare activities.

To alleviate mental stress, which may result from deadlines, targets, or interpersonal differences, established preventive occupational healthcare includes psychological support. In this way, the company can evaluate and prevent mental stress and give employees access to a neutral assessment of situations they find stressful.

Frequentis AG also offers its staff a wide range of preventive healthcare measures to promote their health through the Frequenty vitality programme. A key aspect of this programme is healthy nutrition for employees and guests at the Vienna location. Food is freshly prepared every day and great emphasis is placed on high-quality ingredients and on using regional and seasonal products. The operator of the staff restaurant, SV Österreich, is committed to sustainability in the staff restaurant. As well as offering a wide range of vegetarian and vegan dishes, this includes cutting back on single-use plastic and using more environmentally friendly packaging.

Since most employees have jobs requiring them to sit in front of monitors for long periods, poor posture and musculoskeletal injuries are a special focus of preventive healthcare at Frequentis AG. A varied vitality programme is offered to prevent such problems and enhance employees' health. This includes exercise sessions, training sessions for runners, and participation in runs, as well as massages and an exercise room that is available for individual use. During the lockdown periods, the exercise programmes were switched to virtual modules, which proved very popular with employees.

Where possible, subsidiaries of the Frequentis Group also offer preventive healthcare programmes, check-ups, and activities to support physical and mental health. These include regular running groups, sometimes accompanied by special trainers, participation in regional runs and other sports events, subsidised or free gym membership, and joint exercise sessions for office staff in the workplace. Due to country-specific restrictions during the coronavirus pandemic, some of these activities had to be suspended temporarily in 2022 or were replaced by online courses.

Despite all the precautions, accidents can still happen. Frequentis AG analyses all accidents carefully to prevent them recurring. Although the number of work-related accidents is traditionally low, every accident and near miss and the causes are examined as best possible. When an accident is reported, the background, in other words, the causes, must be analysed as quickly as possible by one of the safety specialists. Where appropriate, the occupational medical officer is consulted. If possible, action to improve the situation is derived and implemented.

GRI 403-2

Operating procedures are drafted for all chemicals and machinery / equipment. These are available to all members of staff. Where applicable, they include notes on their use by risk groups such as expectant and nursing mothers and young people. If a member of staff is pregnant or young people are employed, e.g. through a work-experience placement, holiday job, or similar, the information must be checked by the line manager in order to comply with worker protection requirements. Employees who are required to handle chemicals or operate machinery / equipment receive instruction from their line manager or qualified colleagues in line with the operating procedure.

GRI 403-3

Flexible working hours and the working environment

Well before the outbreak of the COVID-19 pandemic, Frequentis had successfully established flexible working time models to accommodate personal needs and enable employees to achieve a work-life balance. After adaptation to comply with regional legislation, these are applied throughout the Group. Therefore, the switch to more extensive working from home was achieved quickly and smoothly. Using Microsoft Teams and other web-based platforms, events were recast as online meetings, video conferences, webinars, etc.

In April 2021, a law was adopted in Austria to enhance the structure and safety of working from home. The statutory framework for working from home and the results of an internal survey of our employees have been combined in a new regulation on working from home. Depending on the function profile and work performed, employees can reach agreement on working from home for a maximum of three days a week. To supplement these agreements, guidelines on hybrid working were drawn up and distributed to the teams.

During the lockdowns in 2022, the rules on working from home were temporarily put on ice. In all, experience resulting from the pandemic provides an important basis for new forms of working even after the pandemic is over. Hybrid meetings now have a firm place in working practices. To support this, the technical infrastructure in the meeting rooms is being upgraded and special rules of conduct have been issued to ensure the efficiency of virtual and hybrid meetings.

A framework for working from home is to be set at Frequentis companies worldwide in the future, based on local legal requirements.

To make it easier for staff to pursue their personal interests, in addition to statutory dispensations, Frequentis offers staff throughout the Group temporary part-time working conditions, sabbaticals, and educational leave.

Enabling staff to combine work and family life is important to Frequentis. As a family-friendly company, Frequentis AG has offered the Frequenty Kinderwochen summer activity weeks for employees' children since 2012. To date, more than 1,000 employees' children have taken part in the varied programmes offered by this initiative in Vienna. The theme of the Frequenty activity weeks in 2022 was crafts and the 91 "Frequentis kids" aged between 4 and 12 years who took part were actively encouraged to participate in crafts, fun, and games. After a two-year, pandemic-dictated break, a parent-child afternoon was re-introduced in 2022. This is an opportunity for kids to conduct experiments together with their parents.

The Frequenty Kinderwochen contribute to fostering a passion for technology and an interest in natural sciences and experiments from a young age. The programme is continuing in 2023.

These staff-retention measures are having a positive effect: on average every employee stays with Frequentis AG for 10 years.

Broadly based staff development

GRI 404-2

Education and training are very important at Frequentis, and staff commitment is a key factor in the company's success. In order to remain successful on the market, it is important to be able to adapt quickly to new challenges and to constantly update knowledge of laws, requirements, technical specifications, and global issues such as the environment. Frequentis has a lifelong learning concept, which starts when staff join the company. It is important to offer employees an individually agreed training plan. This is discussed at the annual appraisal interview.

The Frequentis Onboarding Programme and the trainee programmes within the Frequentis Group ensure that new employees are rapidly integrated into the company and given the knowledge required for their job, for example project management, systems engineering, and software development, and can build up a personal network. New staff are supported by a tutor in their first months with the company. The onboarding programme at Frequentis' headquarters in Vienna sets the standard for the other companies in the Group. Subsidiaries offer their new staff a combination of corporate standards and a local touch.

In compliance with the rules on social contact during the COVID-19 pandemic, some of our monthly welcome workshops were held virtually in 2022 and mandatory training sessions were switched to distance learning or virtual classrooms. The tutors still provide successful onboarding and make sure that new staff get off to a smooth start.

Appraisal interviews are the main tool used for employee development and leadership. Their aim is to reflect on work and the results achieved in the past year, establish the status quo, and make plans for the coming year. That includes a two-way discussion of expectations, mutual feedback on performance and personal development, and defining binding targets.

In 2022, at least one documented appraisal interview was held with 64% of staff in the Frequentis Group. This included agreeing and defining targets for the coming year. At Frequentis AG, the percentage was 87%. The difference is due to the fact that employees at the companies acquired in 2021 and 2022 had not yet been included in the Group-wide appraisal system.

GRI 404-3

In addition to the Frequentis career model, which places management, expert, and project management careers on an equal footing, specific attention is paid to cross-departmental and intra-group development of talented employees and those with potential. The annual staff review (STAR), which covers more than 80% of employees in the Frequentis Group, provides an overview of the distribution of performance and potential at company, department, and team level. Further, identifying key staff and key functions allows long-term succession planning. Data on succession planning for management and key staff also formed the basis for the ongoing development of Group-wide talent management in 2022.

An adaptable international leadership development programme supports succession planning. Group-wide building and sharing of knowledge is aided, for example, by extensive skills management, virtual platforms, and distance learning.

Thanks to the comprehensive training offering, Frequentis employees participated in around 6,230 training sessions in 2022. The increase of 3,500 compared with 2021 was attributable to an increase in the training opportunities available and to some mandatory training sessions that have to be repeated every two years. Most training sessions are conducted by internal instructors. This is an important element in passing on knowledge and safeguarding Frequentis-specific know-how.

The extensive digitalisation of "HR Learning & Development", with virtual training sessions, distance learning, and blended learning concepts, remains positive. The internal CPD programme includes training in the market, sales, technology, project management, management and leaderships skills, personal development, and business administration, as well as language courses. Sustainability aspects such as capital market compliance and security training are also included.

GRI 404-2

The O'Reilly Online Learning Platform offers access to a wide range of videos, audio books, and e-books on technology and IT. Intensive use is made of this platform, which is now accessible to 17 Group companies in addition to Frequentis AG. The percentage of "engaged users", in other words, users who have completed training modules, is also impressive. According to O'Reilly, the percentage for Frequentis is 73%, which is above the average for other technology companies. In terms of the content chosen, the most popular courses include Red Hat Certified System Administrator and various Kubernetes modules.

In 2022, a new cloud computing programme was added to the technical training courses. To facilitate effective use of the potential of cloud computing and the economic and operational benefits for Frequentis' customers, the aim of this course is to continuously build and extend relevant knowledge in the Frequentis Group. Employees are offered the chance to gain certificates. The first modules in the cloud computing programme focus on Kubernetes and Azure. Amazon Web Services and Google Cloud Platform will be added later.

In 2022, management training focused on special coaching offerings for managers at Frequentis AG. They can select the most suitable partner for their needs from a pool of coaches. Around 20 people used this offer in 2022.

The "Leadership Nuggets" format meets the desire for a short format for managers to exchange

information on specific topics. Four sessions were held in 2022, two on psychological safety and two on decision-making in turbulent times. In view of the very positive feedback, this format is continuing with new topics in 2023.

The COVID-19 pandemic has shown that classroom training sessions are not absolutely necessary and that much learning can take place digitally. At the same time, it showed how important face-to-face contact is. The Frequentis Community Framework therefore supports the establishment and operation of “communities of practice”. In this way, Frequentis encourages a culture of collaboration and sharing specialist knowledge. Communities are now an important element in our model of collecting, creating, and sharing knowledge. In recent years, Frequentis has observed increased interest in informal learning. Seven new Group-wide communities were set up in 2022. They include, in particular, a safety community and a gender diversity community. Other topics that are gaining ground are security, data science, and artificial intelligence.

Sales Excellence Programme

GRI 404-2

Frequentis offers all sales employees extensive training opportunities through a Sales Excellence Programme. This is targeted at staff from the strategic business domains, regions, and international subsidiaries who work in the areas of sales & operations. The aim of the Sales Excellence Programme is to ensure that all sales staff in the Frequentis Group have a uniform knowledge base, and to provide individuals with opportunities to deepen their knowledge.

In 2021, this training programme was driven forward extensively on the basis of an internal analysis of the strengths and development areas of the Frequentis sales organisation. New target-group-oriented modules on topics such as trust-based selling and consultative selling were developed. Following the pilot phase, these were continued in 2022 (for information on mandatory training on data protection and security, see [➤ Safety, security & data protection](#)).

All training sessions are digital. Therefore, they can be offered to all Frequentis subsidiaries, regardless of their geographical location. Moreover, training sessions are recorded and made available for participants on the internal streaming portal so they can refer to them later.

Diversity and equality of opportunity

Customers greatly appreciate the internationality of Frequentis' teams. The culture on which this is based is a key competitive factor on the international market. That is why every effort is made to ensure that it is a sustainable, Group-wide element in the fast-growing Frequentis Group.

GRI 405-1

An optimum work-life balance should be possible for all employees, irrespective of their age, gender, culture, religion, or background. Frequentis established the conditions for this many years ago. This is reflected in the international composition of its teams – the Frequentis Group employs staff from 55 nations – and in long-term employment relationships, which support the aim of retaining knowledge in the Frequentis Group.

Since the Frequentis Group encourages long-term employment, the average age of the workforce is naturally increasing. This trend is also reflected in the figures for retirement and phased retirement of older members of staff. In the past five years, there has been a considerable rise in the number of employees retiring and this will continue in the coming years. Frequentis aims for a mixture of experienced specialists and graduates to maintain a good balance in the age pyramid and safeguard the transfer of know-how. A new project management trainee programme was started in 2022 after a two-year break. This allows timely planning and development of replacements for staff who are retiring.

The Frequentis Group does not tolerate any form of discrimination, especially not on the grounds of gender, age, sexual orientation, race, ethnic background, or religion. Compliance with the legal framework is a matter of course. Frequentis is an equal opportunity employer. All personnel decisions, from recruitment and training to remuneration and promotion, are based on suitability, performance, qualifications, integrity, and similar criteria. No cases of discrimination were reported in 2022.

GRI 406-1

The percentage of women at Frequentis is comparatively low, as it generally is in technical fields. However, a higher percentage of female employees in technical jobs would be desirable from Frequentis' perspective. Heterogeneous teams are generally more effective and enrich the company. The "Women & Careers" initiative launched at the end of 2021 continued with several events in 2022. The objective is to encourage women at Frequentis to play an active part in shaping their career and to give them additional support. The Frequentis "Women's Community" continues to address key aspects. For example, a mentoring programme for women was developed in 2022.

Although it will take time for these measures to have a full impact, positive effects were visible in 2022. The proportion of female employees increased to 23% in the Frequentis Group and 25% at Frequentis AG (compared with 21.7% for both the Frequentis Group and Frequentis AG in 2021). Frequentis Romania remains a "positive outlier" in respect of the proportion of women: due to the higher number of women with technical qualifications in Romania, the percentage of female employees at this development company is 37% (compared with 34% in 2021).

The percentage of female job applicants also increased in 2022. At Frequentis AG, women accounted for 33.7% of the around 3,000 applications received in 2022, compared with 25.7% in 2021, although this was partly due to the type of vacancies advertised.

Frequentis is also involved in a range of cooperation projects with schools and universities to interest women in technical professions. For example, it is a project partner in Girls! TECH UP, an initiative organised by the Austrian electrical engineering association OVE to interest girls in the world of technology and technical professions at an early stage by offering them female role models. Frequentis also partners with “sheconomy”, a platform that showcases impressive women, and FIT (women in technology) in Vienna. As a member of the “Agenda Bahnindustrie Frauen” initiative, Frequentis provides a platform to identify and support mobility experts and women working in the railway industry.

Human Resources International

An in-house competence centre is responsible for the main tasks required to provide continuous support for international employees and to set up international assignments. The Human Resources International competence centre also provides valuable assistance for the rollout of HR processes and for knowledge sharing and knowledge transfer across the Group.

Global HR management was consolidated in 2022 in order to strengthen the business and regionalisation. In particular, an even more focused response to global needs, mutual learning, and more efficient collaboration is encouraged by more intensive networking of all local HR managers and HR support staff worldwide through the Global HR Community, which was set up about two years ago, and regular information-sharing summits.

Knowledge transfer extends to recruitment activities. Throughout the Frequentis Group, selected recruiting platforms and events such as job fairs are used to position Frequentis as an attractive employer in the IT sector. Social media platforms are becoming increasingly important, especially in the area of active sourcing.

The international assignment programme, which includes a programme for successful reintegration of returning delegates, offers employees an opportunity to work at subsidiaries in order to gain experience of working in a different country and spread the Frequentis culture throughout Group. Despite the pandemic-related restrictions, eight international assignments were successfully arranged in 2022.

Social responsibility

In keeping with its mission “for a safer world”, Frequentis sees making a contribution to disaster relief as a social responsibility and an expression of solidarity with those affected.

Supporting children has a special place at Frequentis because in many cases too little attention is paid to their situation as they are the weakest members of society. Immediately after Russia’s invasion of Ukraine, Frequentis therefore made a significant donation to the child relief organisation SOS Kinderdorf near Kiev. Frequentis also chose SOS-Kinderdorf Österreich and SOS-Kinderdorf International for its Christmas donations in 2022. In addition, the Frequentis Christmas market at the Vienna location collected donations for the Austrian Caritas charity.

Subsidiaries have similar initiatives. One example is the outreach programme that has been run for many years by AIRNAV Technology Services, a Frequentis subsidiary in the Philippines. School supplies and personal gifts such as vitamin preparations, toys, clothing, and sweets are donated to children in an isolated village.

Sponsoring education

For many years, the Frequentis organisation in Austria and some of its subsidiaries, for example, in Germany, Romania, Slovakia, and Australia, have provided selective educational sponsorship for technical schools and universities. Special technically oriented training facilities require considerable financial resources and basic state funding generally only covers part of the cost. Exchange with industry is also vital to ensure top-quality, practice-oriented training that is state-of-the-art. Close collaboration between business and education is therefore essential.

GRI 2-28

Therefore, Frequentis AG offers work-experience placements for students and co-supervises dissertations and theses for bachelor's and master's degrees. Following a two-year pandemic-induced break, it was possible to offer 16 holiday internships at the company's headquarters in Vienna in 2022. By contrast, the prevailing pandemic regulations restricted Frequentis' initiatives in the areas of educational sponsorship, workshops, and field trips for technical higher education institutions in Vienna and Lower Austria in 2022. Frequentis Romania was able to resume its activities under the Erasmus programme, which had been put on ice for several years, and Frequentis Slovakia had a renewed presence at job fairs.

For many years, Frequentis has also been committed to helping various universities in Austria improve the quality of training. In 2022, for the first time in two years, the course "Next Generation Air Traffic Management Systems – Air Traffic Control as an Example of Safety-Critical Systems" was offered at Vienna University of Technology in cooperation with the Institute for Computer Technology. Here, Frequentis experts pass on their knowledge and give students an insight into the world of Frequentis. It will be offered as an elective module in 2023.

"Adventure in Computer Science", another cooperation with Vienna University of Technology launched in 2019, targets a younger age group: this permanent exhibition is designed to encourage school children's enthusiasm for computer science.

Start-up activities

Frequentis has actively supported start-up activities since the 1990s. In recent years, the Frequentis Start-up Centre has evolved from a physical location in Vienna to an international virtual network that encourages close exchange of skills and ideas. Above all, the COVID-19 pandemic has shown that a network of innovative partners, collaboration, and mutual support are very important for start-ups.

GRI 2-28

Frequentis' current focus is on cooperation in the area of drones. One example is skyzr GmbH, the first Business Development spin-off, which is working with Frequentis in the field of UTM. At the same time, it is pursuing its own product developments for drone pilots and their clients.

Environmental matters

GRI 3-3

Environmental aspects and careful use of resources are important to Frequentis at all stages in the value chain. Sustainability and environmental awareness are taken into consideration in production workflows, where careful use of primary energy resources and raw materials, reducing harmful emissions, and the use of environmentally compatible production processes are documented and checked as part of the management review in the regular HSE (Health & Safety and Environment) report.

Another Group-wide contribution to sustainability and the conservation of resources is that Frequentis products and solutions are used by customers for many years, often decades. Frequentis supports this long life cycle by providing extensive service and maintenance programmes and through life cycle management. Customer Service offers various service levels and service teams are available worldwide around the clock.

In addition, Frequentis solutions help optimise traffic flows and therefore reduce pollution.

The coronavirus pandemic had a major impact on environmental matters at Frequentis in 2020. For example, there was a massive drop in business trips, resulting in an extensive reduction in CO₂ emissions. This trend continued in 2021. It was also observed in 2022 and included in Frequentis' environmental concepts. Following the improvement in the global pandemic situation, greater attention will still be paid to optimising business trips and incorporating virtual meetings into project work.

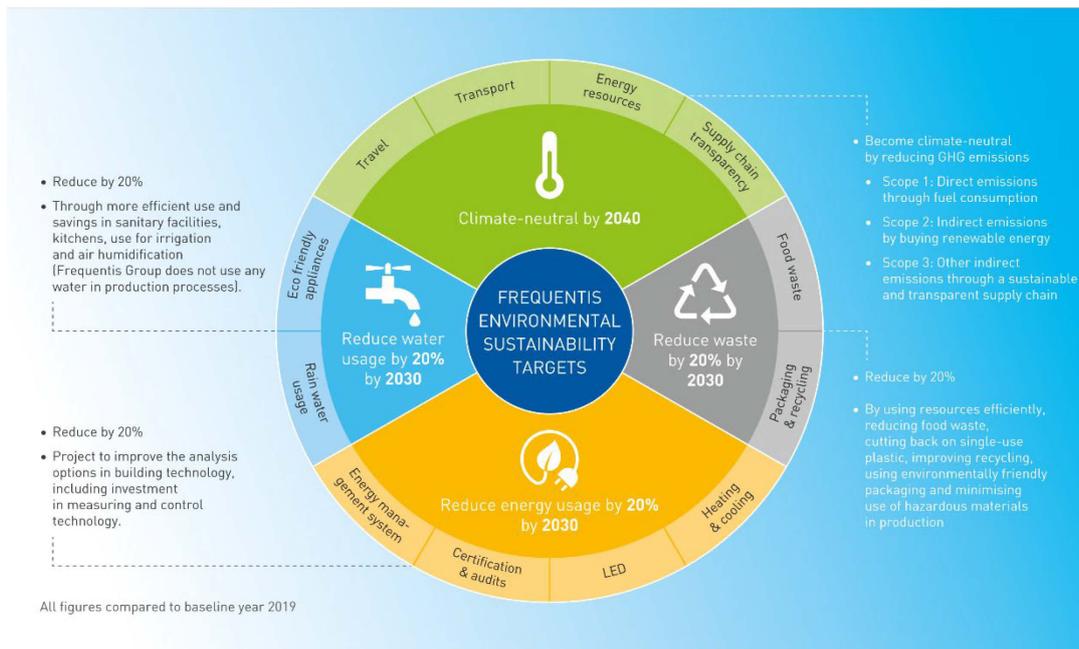
Without corresponding energy efficiency concepts and their implementation, Frequentis would not be able to make a significant contribution to international climate protection guidelines (e.g. United Nations, EU). Inefficient use of energy resources would also mean higher costs for the company.

Equally, high energy consumption by Frequentis systems would affect the energy efficiency of the customers who use them.

The Frequentis Group uses various concepts to reduce environmental impact in the production and use of its systems. In procurement processes, Frequentis looks for environmentally friendly materials and supplies. Moreover, in development processes it strives to optimise the energy consumption of its systems and software to help customers optimise the energy consumption of their installations.

Long-term environmental targets

To bring together all steps taken under the auspices of the established environmental management system, long-term environmental targets have been defined, taking the European climate protection endeavours a guide. All activities to date constitute important steps towards achieving these environmental targets. Further measures and graduated plans have been defined to bring Frequentis closer to these targets. Progress is monitored through annual management reviews.



Environmental impact of on-site activities

The Frequentis Group concentrates on installing and operating its solutions on existing infrastructure. That minimises the environmental impact of Frequentis activities on local ecosystems. Frequentis activities do not have any impact on biodiversity, where the focus is on intensive land-use by humans, in other words, converting natural habitats and ecosystems into agroecosystems.

GRI 304-1
GRI 304-2

Moreover, the risk of the irreversible loss of valuable natural areas can be completely eliminated by using specific local knowledge and focusing on correct spatial development in collaboration with subcontractors, with whom Frequentis' customers have often had a very good relationship for many years. That avoids conflicts between the implementation of Frequentis' solutions and the natural environment.

Frequentis' local activities focus on the installation of systems, maintenance work, and training. Consequently, they do not include the storage or handling of chemicals and there is no impact on groundwater levels or change in land use. Therefore, the company's project work does not have any ecological impact on nearby wetland areas or terrestrial ecosystems.

With regard to activities on customers' sites, Frequentis focuses on reducing the carbon emissions resulting from business travel by endeavouring to make sure that all employees are accommodated as close as possible to the place of their assignment.

GRI 413-1

Furthermore, Frequentis works with its customers and project partners to enhance local environmental protection, broaden knowledge, disseminate best practices, and support initiatives and achievements geared to improving the environment. With this in mind, Frequentis constantly strives to learn about and contribute to local nature conservation projects and initiatives to enhance environmental sustainability.

Re-use/refurbishment of products

GRI 301-2
GRI 301-3

Frequentis pays attention to the re-use and refurbishment of products. For many years, the central element in this has been the selective repurchase of hardware originally delivered by Frequentis to customers. Repurchased parts are subject to a visual quality control check and stored in conditions with ESD protection until they can be reused. For customers, this avoids the special disposal process that would otherwise be required when an old system is taken out of service.

Some of these system components can be refurbished by Frequentis for re-use in as-new assemblies and therefore remain in use for many years. Normally only a few components have to be replaced in the refurbishment process, which reduces the energy that would otherwise be required in Frequentis' production facilities to manufacture new system components.

Efficient use of energy

Frequentis gives priority to efficient use of energy. In recent years, Frequentis AG has used a variety of measures such as free cooling, heat pumps, and solar installations to manage power consumption carefully, despite the increase in revenues.

GRI 302-1
GRI 302-4

Since 2019, all electricity used by Frequentis AG has been sourced from KELAG Energie & Wärme GmbH, which exclusively supplies hydroelectric power, wind power, and electricity from other ecological sources. This makes a contribution to reducing pollution by climate-damaging gases (e.g. carbon dioxide) and radioactive waste. It is also a clear signal for sustainability and efficient use of resources.

GRI 302-3

Fuel consumption at Frequentis AG's site dropped in 2022. Some heating has been cut since 2021. Detailed energy data for Frequentis AG can be found in the section headed [➤ KPIs](#).

GRI 302-2

In 2022, there was a further reduction in total energy consumption by the installations used to assemble systems for delivery to customers. This was due to the increased use of software-only solutions. Consequently, the assembly of extensive hardware rack systems is declining steadily.

However, average power consumption during operation of the systems is rising as electronic components are more densely packed. This can be influenced by optimising the configuration of the racks.

Efficient use of resources and waste separation

In the context of efficient use of resources, Frequentis makes a sustained effort to reduce the resources used within the company and to minimise the use of hazardous materials in production. An annual HSE audit evaluates the action taken and recommends new initiatives to ensure correct sorting of waste and help avoid waste.

GRI 306-1
GRI 306-2

Environmental protection plays an important role throughout the value chain at Frequentis, from the selection of materials to processing and recyclability. Considerable attention is paid to reducing the use of hazardous materials in production. At the same time, Frequentis AG takes environmental relevance into consideration by using environmentally compatible production processes such as lead-free soldering and reducing power consumption in the production and operation of its systems. Attention is also paid to resource-saving packaging in the shipment of equipment, for example, by using reusable transport boxes.

GRI 306-4

Systematic sorting of different types of waste is compulsory. There are many waste collection points at the company's headquarters in Vienna. Each office has separate containers for recyclable paper (data protection regulations are observed in the disposal of paper) and other refuse. For all other types of waste, there are waste sorting points in every kitchenette and at the large copy centres. Used electrical appliances are collected centrally by Logistics (Material & Transport Department). In keeping with the motto "Donate instead of throwing away", IT hardware (laptops, PCs, printers, and headsets) that is no longer required by Frequentis AG is donated to the not-for-profit organisation "PCs für alle" (*PCs for everyone*). At subsidiaries, waste is sorted in accordance with local regulations.

This mindful approach minimises Frequentis' waste-related impact. As a result, hazardous waste accounts for less than 5% of total waste. Moreover, as a result of the pandemic, the amount of waste paper dropped steadily from 8.5 tonnes in 2019 to 3.6 tonnes in 2021. There was a slight increase in 2022, which can be explained by more people working in Frequentis' offices. The waste generated by Frequentis' activities at the Vienna location is disposed of by Saubermacher, an external waste disposal company.

The print-run for the "Frequente" employee magazine, which is published three times a year, has been reduced considerably. The magazine is offered preferably for download from the intranet. Since 2020, PEFC-certified paper has been used for the remaining printed copies (e.g. for mailing to employees on leave and pensioners).

Frequentis also uses resources carefully in its marketing activities. For example, when building booths for international trade shows, attention is paid to reusable elements. Virtualisation and digitalisation have brought a massive reduction in the volume of printed promotional materials. Moreover, setting up virtual demonstration rooms means that customer presentations and training can be carried out without business travel. Sustainability is also important to Frequentis in the procurement of promotional materials. Since summer 2021 one of the most popular advertising give-aways, a Frequentis pen, has been produced entirely from recycled PET bottles. The pen also has an antibacterial surface.

Careful use of food resources is also a focus of the catering firm at Frequentis' head office in Vienna: SV Österreich has taken a conscious approach to the environment and resources for many years. In particular, it endeavours to reduce its environmental impact along the entire value chain, from considering the origin of products in the procurement phase to their preparation and disposal. Free, environmentally friendly reusable packaging for take-away food was introduced in autumn 2021.

Specific steps are also taken to reduce food waste. These include careful planning of supply and the related purchases, fresh preparation, regular preparation of the dishes on the lunch menu, and careful replenishment of the salad buffet. All this requires knowledge and conviction. For this reason, the company also places value on raising the awareness of its employees. To do this and to draw attention to the action that can be taken to avoid food waste, the staff restaurant has introduced an annual "United Against Waste" week.

GRI 303-1
GRI 303-2

Thanks to state-of-the-art production technology, Frequentis does not withdraw any groundwater or surface water for production purposes or inclusion in products. The water used at Frequentis' facilities is supplied from standard municipal sources for the sole purpose of commercial use, i.e. for sanitary purposes. Wastewater is discharged into the municipal sewer system and meets Austria's high wastewater quality standards. This is monitored by unannounced sampling by the authorities. The possibility of using rainwater for sanitary installations has already been analysed and had to be rejected as there are no separate pipes for this in the building.

GRI 2-27

Frequentis is not aware of any cases of failure to comply with environmental laws and regulations in the reporting period. The company can confirm that it did not incur any fines or non-monetary sanctions in 2022.

Greenhouse gas impacts

Frequentis is continuously extending its accounting and reporting of greenhouse gases (GHG) using standardised, internationally recognised principles and approaches, taking into consideration the concept of scopes as defined, for example, in the GHG Protocol Corporate Accounting and Reporting Standard.

GRI 305-1
GRI 305-5

Taking Frequentis AG as an example, fuel consumption by the heating system and by the fleet of company cars have been identified as direct Scope 1 GHG emissions from sources that are owned or controlled by the company.

Frequentis' current goal of addressing climate action by drawing up a company-wide GHG inventory and rolling out environmental performance indicators to its subsidiaries is best achieved by using the method based on standard emissions factor data from international sources rather than country- and combustion-specific data. Nevertheless, the company is endeavouring to adapt the methodology where this makes sense by using country-specific emission factors, while continuing to bear in mind the IPCC (intergovernmental panel on climate change) guidelines. For these calculations, Frequentis used the data for the 100-year global warming potential (GWP-100), which takes into account the radiative efficiency of the various substances and their atmospheric lifetimes compared with those of the reference gas CO₂, as derived from the IPCC report "Climate Change 2013: The Physical Science Basis". The GHG emissions calculations cover the gases carbon dioxide, methane, and nitrous oxide, and are converted into CO₂ equivalents by applying the corresponding GWP-100 as the conversion factor.

In its efforts to reduce carbon emissions, the Frequentis Group welcomes the rising interest shown by staff in switching to electric or hybrid vehicles when ordering new company cars. This is supported, for example, by subsidies for electric cars and the installation of charging stations in the company's car park. These source their power from in-house photovoltaic installations. At Frequentis in Germany, a fleet policy was introduced in 2020 which gives preference to electric and hybrid vehicles. Hybrids already make up 53% of the fleet of company cars at Frequentis Comsoft.

Frequentis AG has switched sourcing of energy to 100% renewable resources such as hydroelectric power, wind energy, and other ecological sources. In this way, it has taken a major step forward in the decarbonisation of the company's headquarters in Vienna, where nearly 50% of the Group's employees work. This location includes a production facility. Switching to an electricity provider whose energy mix does not contain any CO₂ emissions contributes to the fact that no energy indirect GHG emissions (Scope 2) are incurred in the generation of purchased electricity.

GRI 305-2
GRI 305-5

Frequentis AG is constantly extending the coverage of its GHG inventory. Therefore, it reports the following other indirect GHG emissions (Scope 3) for Frequentis AG for 2022: waste generated in operations and business travel. These categories are defined in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard and comprise indirect GHG emissions that are not contained in energy indirect (Scope 2) GHG emissions occurring outside the organisation. The GHG inventory is continuously being updated to include other indirect sources of emissions to expand the coverage of the GHG inventory.

GRI 305-3
GRI 305-5

Business trips are very important at Frequentis because of the international nature of its business activities. For Frequentis AG and selected subsidiaries, business travel is organised centrally by Frequentis Travel Management. Group-wide, all business trips are organised in compliance with a defined travel policy, which applies to everyone travelling on behalf of Frequentis

Business trips may only be undertaken for business reasons and if the tasks cannot be done in another form (email, phone, online meetings, or video conferencing). Decisions on business travel are taken on the basis of cost-efficiency and sustainability. In 2022, these criteria were supplemented by the lessons learnt during the pandemic.

Green products

In addition to other products, Frequentis develops and delivers solutions for the safe management of traffic: railways, air traffic, and shipping. The company aims to structure its solutions to ensure that traffic can be managed both safely and efficiently. These green solutions bring a lasting reduction in the CO₂ emissions of the traffic managed.

GRI 305-5

For example, Frequentis supplies air traffic management products for safe and efficient traffic management in all flight phases. As a result, airlines save kerosene on the ground, during take-off and landing, and in flight, thus reducing their total carbon emissions.

In addition, Frequentis plays a key role in research projects that aim to reduce environmental impact, for example, as part of the Strategic Research and Innovation Agenda and the European Green Deal. For some 20 years, Frequentis has been an important partner in the SESAR programme, a pan-European initiative to standardise, harmonise, and synchronise European air traffic management services.

Long-standing partner for the EU's SESAR programme

SESAR, the Single European Sky ATM Research programme, which started in 2005, is a key element in the creation of a uniform airspace as part of the European Commission's Single European Sky Initiative. The aim is to do away with the present fragmented national flight management systems and processes, pool the expertise of the aviation sector, and establish a uniform flight management network in Europe.

GRI 305-5

One important focus of this project is improving the environmental compatibility of aviation. The European Green Deal adopted by the European Commission in December 2019 aims to create the world's first climate-neutral air traffic bloc by 2050. This ambitious goal requires a fundamental transformation of the entire aviation sector. The SESAR partner organisations and companies want to build on their progress in the environmental area to help make European airspace the most efficient and environmentally friendly in the world. This could be achieved, for example, by optimising flight routes, implementing formation flights, and creating automated processes.

Human rights, compliance & anti-corruption

Combating corruption and the violation of human rights is important for the Frequentis Group. Frequentis operates internationally and is therefore also active in countries that have a high ranking on Transparency International's Corruption Perception Index (CPI).

GRI 2-23
GRI 3-3
GRI 205-2

The employees of the Frequentis Group are required to act lawfully in all business dealings and to show clearly through their conduct that they reject all forms of bribery and corruption.

Corruption and violation of human rights can have serious implications for the company and its employees. The principal risks are the loss of orders and exclusion from future tender processes, fines, reputational damage, and criminal prosecution of the company and the employees involved. Moreover, a loss of reputation could make the Frequentis Group less attractive to new employees or customers and suppliers might no longer regard it as a reliable business partner.

The principles of integrity and business ethics at Frequentis are set out in the Code of Conduct and internal anti-corruption policies and form the basis for internal and external collaboration. The corporate policy on Anti-Corruption, Invitations and Gifts is an operational instruction designed to avoid all forms of corruption and provides guidance on ensuring legally compliant conduct when dealing with the Frequentis Group's business partners.

The Code of Conduct defines principles and guidelines for responsible conduct and integrity. It is a key element in Frequentis' corporate culture and shapes the Frequentis Group. The Code of Conduct was drawn up by the Executive Board of Frequentis AG and applies to all employees of the Frequentis Group. Alongside Frequentis AG, it therefore applies at all companies in which Frequentis AG has a direct or indirect stake of at least 50% or in which it exercises control in a different manner.

The introduction of an obligatory e-learning module "Business ethics and the Code of Conduct" in July 2022 ensures that all employees throughout the Group are aware of the principles and values set out in the Frequentis Code of Conduct.

It is also in the interest of the Frequentis Group to ensure that all significant business partners (suppliers, consultants, contractors, ...) who provide services for the Frequentis Group or operate on its behalf are familiar with the Code of Conduct. These business partners are expected to respect the principles set out in the Code of Conduct and to observe them in their business relationship with the Frequentis Group.

In 2022, there were no cases of corruption, nor any disciplinary measures, court cases, or dismissals linked to corruption. Moreover, no contracts with suppliers had to be terminated as a result of violations of human rights. Furthermore, in the reporting period the Frequentis Group was not required to pay any fines in connection with corruption, anti-competitive practices, or failure to comply with social or economic legislation and/or regulations.

GRI 2-27
GRI 205-3
GRI 206-1

Preventive measures will continue to be implemented to make sure that employees can recognise corruption and violations of human rights and the company can take any necessary action.

Compliance

GRI 2-26
GRI 205-2

The Executive Board of Frequentis AG has appointed a Compliance Officer to support it in ensuring Group-wide observance of compliance requirements. The Compliance Officer's main role is to raise awareness and to take steps to ensure exemplary conduct in compliance with the law and guidelines. Employees of Frequentis AG and its subsidiaries, agents, and sub-suppliers are required to respect country-specific laws and regulations.

As a provider of communications and information systems for safety-critical applications, Frequentis AG has an enormous responsibility to its customers, society, and its shareholders. Their trust is indispensable for Frequentis' business activities. The reputation and business success of a company can be put at considerable risk by breaches of compliance.

The compliance management system is based on the following principles:

- **Prevention:** defining corporate policies, training, creating compliance awareness, providing advice on complex compliance issues
- **Early detection:** possibility of reporting compliance incidents; performing compliance audits and special audits in response to specific circumstances
- **Response:** taking any necessary measures and imposing sanctions

Making staff aware of the key principles is a declared aim of the Frequentis Group. Compliance is obligatory, not optional.

Greater use was again made of virtual classroom training sessions in 2022. This also gives international employees easier access to compliance training; this should continuously increase the training rate.

Other focal areas of future compliance activities will be preventing and identifying compliance violations that harm the company's interests, avoiding liability risks and reputational damage, training, and advising and protecting the senior management, managers, and staff.

Training

Three virtual training modules were used in 2022: the Compliance for Sales training course is a compulsory part of the Sales Excellence Programme for all sales staff. By year-end 2022, 57% of sales staff had completed these modules ([↗ Sales Excellence Programme](#)).

Advice

The Compliance Officer is also the first line of contact for staff on compliance issues. 14 enquiries were dealt with in 2022. These were submitted by email to a special email account, compliance@frequentis.com, or asked personally or over the phone.

Compliance audits

Since 2019, receipts and travel expense claims have been monitored for compliance with the limits set out in the Group policy on Anti-corruption, Invitations, and Gifts. The focus is on receipts relating to gifts, invitations, and hospitality. An internal process has been implemented to ensure that the book-keeping department submits all receipts relating to gifts and invitations that exceed the defined limit set in the policy to the Compliance Officer for further checking and clarification.

GRI 205-1

Whistleblowing

An open and honest corporate culture, and transparent and respectful communication have always been important to Frequentis. To supplement the existing ways of drawing attention to irregularities and risks or suggesting improvements and to meet the requirements of an EU Directive, a whistleblower system was introduced in December 2021.

GRI 2-16

This system is available to employees via a link in the intranet and to customers and other external partners via a link on Frequentis' website. It can also be reached directly by entering the URL [<https://frequentis.integrityline.com/frontpage>] in the selected browser.

All stakeholders are therefore offered the possibility of anonymously reporting any suspicions of criminal offences or attempted offences, indications of unequal treatment or other forms of illegal discrimination, breaches of the Group policy on Anti-corruption, Invitations, and Gifts, and breaches of EU law. All reports received are treated as strictly confidential and anyone who submits a report in good faith will be protected from any sort of reprisals. The whistleblower officer analyses the reports received using a clearly defined process and initiates the subsequent steps. If he has any questions, he can contact the whistleblower via the system's anonymous mailbox.

GRI 2-25

The whistleblower system was first implemented at Frequentis AG. The next step is to roll it out to those subsidiaries that are required by the EU Directive to implement a whistleblower system.

No reports were received via this system in 2022.

Global Channel Management

Frequentis AG has a network of more than 80 agents around the world. The agent management approach was revised in 2021 and has been integrated into a Group-wide Channel Management unit. The role of this organisational unit, which was established on 1 January 2022, is not simply to support sales agents; it is also responsible for ensuring that they are integrated into Group-wide processes, standards, and policies, and that they observe all compliance regulations.

In 2022, the first steps were taken to establish an extensive partner programme to drive forward regular engagement, training, and development of channel partners and establish Group-wide processes, standards, and guidelines for the management of channel partners.

This included four regional partner events, which were organised both digitally and locally to give channel partners around the world information and training on the Frequentis product portfolio and the processes to be observed. Furthermore, a Group-wide Sales Partner Policy was prepared and published. This aims to ensure a uniform process for the use, selection, and management of channel partners in the Frequentis Group, together with the associated compliance audits. Further measures are planned in the areas of training & enablement, engagement, and communication in 2023.

Compliance with trade regulations is very important in import and export transactions. In November, the position of Group Trade Compliance Officer was established in response to the increase in export restrictions and economic sanctions affecting global trade. The aim of this new function is to permanently establish a harmonised Group-wide approach to trade compliance.

Capital market compliance

To implement capital market-relevant laws and regulations, the Frequentis Group has a capital market compliance policy. This covers, in particular, the handling and publication of capital market-relevant information, the prohibition of trading in shares and other financial instruments of Frequentis AG, and the obligation to report transactions by members of the management ("Directors' Dealings"). In addition, the position of a Capital Market Compliance Officer has been established. The Capital Market Compliance Officer is responsible for implementing the capital market compliance policy and reports directly to the Executive Board of Frequentis AG. This is designed to ensure that the Frequentis Group acts with integrity on the capital market and to enhance employees' understanding of what is meant by capital market compliance.

Failure to comply with laws and regulations relating to the capital market can have legal and financial consequences for Frequentis AG and/or its employees. Furthermore, serious violations can cause reputational damage including long-term damage to the confidence of investors and other stakeholders, making it more difficult for the company to execute any further capital measures on the capital market.

The measures set out in the capital market compliance policy are designed to ensure compliance with the laws and regulations relating to the capital market. The Capital Market Compliance Officer is responsible for implementing the policy in the Frequentis Group and monitoring the measures it describes. To enhance understanding of this policy, employees also receive training.

The mandatory online training on capital market issues introduced in 2020 was continued in 2022. The main focus is on raising awareness of potential insider knowledge. The training module has to be repeated every two years and includes a test at the end.

In 2022, 85% of employees in the Frequentis Group had a valid training certificate.

Selection of suppliers

The criteria used by Frequentis to select suppliers include ethics, compliance with labour standards, and environmental protection, as set out in the Corporate Social Responsibility (CSR) code for suppliers and subcontractors.

Since it operates in the safety-critical area, Frequentis places its trust in reliable suppliers and ongoing, long-term business relationships. A stable basis, regular interaction, and transparency are vital for project execution. Objective evaluation criteria are used for this. These are defined before analysing offers and are applied irrespective of the stakeholders involved. The aggregate results deliver a decision on the winner of a tender or a more complex request for proposals.

The CSR code for suppliers and subcontractors highlights Frequentis AG's commitment to protecting the environment, respecting human rights and labour standards, and fighting corruption. Frequentis' suppliers give an undertaking that they will act in accordance with these principles. The focus is first and foremost on respecting labour standards. Frequentis explicitly rejects forced and compulsory labour, child and youth labour, moonlighting, and discrimination of employees. Observing working hours, ensuring a safe working environment, and paying the statutory minimum wage are other key elements of the CSR code.

As a result of the large number of business relationships, there is a significant risk that suppliers could fail to respect human rights, labour standards, and social welfare legislation. That could result in inhumane living and working conditions and non-compliant business relationships with third parties. Moreover, in this context there are delivery risks, reputational risks, and a risk of losing customers.

Supply chain management staff and managers receive training in the principles of transparency along the supply chain, including strict avoidance of slavery, human trafficking, any form of forced or compulsory labour, child labour, and all types of discrimination.

"Modern slavery" is included in the Code of Conduct and the Corporate Social Responsibility (CSR) code for suppliers and subcontractors, and in the contractual documents for subcontractors, suppliers, coaches, and employment agencies.

The Frequentis CSR code is an integral part of the General Terms and Conditions of Purchase and the master agreement with suppliers.

The obligation to accept the CSR code has been included in the supplier self-assessment. By signing this document at the start of the business relationship, suppliers given an undertaking that they and their subcontractors will apply the CSR code.

Supplier audits

Frequentis AG regularly audits its suppliers. The audits are conducted at the end of a year for the following year. There are various reasons for a supplier audit:

- To get to know a potential new supplier
- The supplier accounts for significant order volume or has increased risk potential
- Difficulties in the relationship with the supplier over the past year (e.g. delivery, quality, communication problems, etc.)

The audit plan can be modified in the light of events during the year, planned audits may be dropped or postponed, and new audits may be added to the plan. This flexibility is necessary to respond to current requirements.

Procurement governance principles are in place at subsidiaries with sales responsibility and supplier audits are conducted on an ad-hoc basis.

Supplier assessments

In addition to the supplier audits, Frequentis AG assesses its established suppliers once a year. They are assessed in the first quarter of the year using the following criteria, which have recently been revised:

- Quality: e.g. product quality, product complexity, quality assurance system
- Price: e.g. development of prices and comparison with the previous year and market prices
- Support quality: e.g. commercial, personal, and technical support
- Delivery performance: the main criteria here are adherence to delivery dates and volumes; attention is also paid to environment-friendly and sustainable packaging
- Sustainability of the supplier: this involves evaluating, on the one hand, the business environment (stability, performance, flexibility, environmental management, etc.) and, on the other, social aspects (CSR code, social competence, etc.).

These assessment criteria have a 15% weighting and are included in the overall assessment, which is generated with the aid of the ERP system (SAP).

GRI 308-1
GRI 414-1

Assessments are performed for the suppliers that account for the highest order volume (top 10%) and those that play a key role in the supply of specific groups of products. The 2022 assessment will be performed as planned in Q1 2023. The 2021 assessment, which was performed in 2022, covered 74 suppliers accounting for a procurement volume of EUR 23.1 million at Frequentis AG.

The top three suppliers received performance awards and certificates. A range of measures is agreed with suppliers whose performance needs to be improved and implementation is monitored.

As well as quality, price, reliability, and service, responsible procurement emphasises the importance of respecting human rights, humane working conditions, and environment-related issues. Sustainability was a special focus in the 2021 assessment and for the first time an award was presented for the best sustainability score. This award will also be presented for the 2022 assessment.

At Frequentis AG and its subsidiaries, whose business activities comprise production and integration, other key criteria are short supply lines and improving local value-added. Therefore, local sourcing is the goal for the majority of products; for Frequentis AG that means within Europe. Apart from intragroup procurement, 93.5% of Frequentis AG's procurement is from suppliers in Europe. Taking into account the subsidiaries that provide independent production and integration services, Europe accounts for around 92.5% of procurement.

*GRI 2-6
GRI 204-1*

Despite pandemic-related restrictions, 9 on-site supplier audits were performed in 2022, mainly in Austria and Germany. (For comparison: 5 audits were performed in 2021; virtual audits were not performed because visiting facilities for quality checks is a key criterion for supplier audits.)

*GRI 308-1
GRI 414-1*

The aim is to continue the use and Group-wide rollout of the Frequentis Governance Policy, which includes precise supplier evaluations, to achieve a continuous improvement in supplier management. Furthermore, potential for improvement is evaluated during supplier audits.

In addition to the criteria listed above, the procurement function aims to avoid long procurement distances in order to reduce the Frequentis Group's carbon footprint and to sharpen sustainability awareness throughout the Group.

GRI 305-5

Public policy

Frequentis AG strives to obtain the trust of its stakeholders by implementing high standards of corporate governance, transparency, and reliability. As a company whose business activities primarily include public sector contracts, support for political parties, including donations to such parties, is strictly prohibited. Therefore, Frequentis did not make any donations to political parties in 2022.

GRI 415-1

Frequentis has been registered with the European Transparency Register since 2014 to disclose its activities in the area of research funding in Europe.

Safety, security & data protection

GRI 3-3

Handling safety-critical systems is a central feature of Frequentis' corporate culture. It is based on many years' experience of safety-critical systems. That responsibility is reflected in Frequentis' mission "for a safer world". It expresses a deeply rooted technical and emotional understanding of customers' needs, along with a highly developed ability to understand current challenges and working processes, and strong identification with the task in hand. Other key attributes are openness, flexibility, and transparency – both in internal collaboration and in customer relationships.

Digital security is becoming more and more of a challenge for companies. Increasingly sophisticated cyberattacks on critical infrastructure require special knowledge and specific measures to harden technical systems to such attacks. This has a dual impact on Frequentis: firstly, because it needs to protect its own working environment and IT structure and secondly, because Frequentis Group companies need to provide the best possible support and assistance to help customers handle this new threat.

In line with its mission "for a safer world", Frequentis addresses both safety and security. Safety means avoiding unacceptable operating risks, while security refers to the ability to defend against external attacks. In terms of the sustainability of the Frequentis Group's activities, safety and security are therefore closely interlinked: there is no safety without security.

Measures to prevent cybercrime have high priority at Frequentis. Special attention is paid to endpoint protection technologies for Frequentis' own IT systems to identify and ward off phishing attacks – a problem that has definitely increased – including in the remote operation of devices. This was accompanied by an internal awareness campaign.

Safety and security are both fundamental to the Frequentis Group's safety-critical business operations. Failures and shortcomings in these areas would result in an immediate loss of confidence by our customers and business partners and have a lasting negative impact on our business.

Safety awareness as an element in the Frequentis culture

Wherever Frequentis' systems are used, people are responsible for the safety of other people and of property. This aspect of Frequentis' culture is important for internal collaboration and for external interaction with customers, business partners, and other stakeholders. It is also a key determinant of behaviour and attitude when dealing with risks.

To sharpen the awareness of employees and, especially, new colleagues for this important aspect of culture, an awareness-raising video on safety-critical behaviour was produced and published in 2020. In this video, the Executive Board explains the specific features and importance of safety-critical behaviour and how this can be implemented optimally in day-to-day working practices, for example, through proactive risk management, high safety and security standards, and professional project management.



This introduction to safety-critical behaviour has been designated as a mandatory training unit that has to be refreshed every two years. By the end of 2022, the completion rate of valid training modules was 85%. The average percentage in the Group fluctuates due to expansion of the Group.

Safety

System safety is achieved by operating a system on top of the actual system to analyse the environment, users, or third parties. With reference to Frequentis, it means that the safe operation of Frequentis systems has to be guaranteed at all times. Frequentis has been a global leader in safety for many years. Since 1995 it has had its own competence centre for system safety management. This provides safety expertise for customer projects. Numerous awards, published papers, and international accolades testify to Frequentis' enormous expertise in this field. In 2022, the Frequentis team again received two international awards.

Safety management system

Safety is an integral part of Frequentis' business processes and therefore a key competitive advantage.

To perform the required system safety tasks in regulated areas of operation, Frequentis has an extensive safety management system. An important element is the management's commitment to safety, which is set out in Frequentis' safety policy, together with the goal of upholding safety standards in all activities and improving them wherever possible.

Everyone in the company has to understand the importance of safety and to constantly strive to optimise safety in cooperation with customers, suppliers, and authorities. That allows early identification and evaluation of risks so that appropriate risk mitigation measures can be taken.

The basic elements of the safety management system are consistent application of international safety standards after adaptation for the relevant business unit, an obligatory safety assessment for all product developments, a Group-wide hazard management system for preventive risk minimisation, and the in-house Safety Academy for staff training. All this takes place in the context of the different regulatory requirements in target countries and the specifications of customers operating in different business areas.

Safety certificate

In response to rising international requirements, in 2005 a Group-wide training concept was established through the Safety Academy, together with specialised safety training leading to the award of a certificate. So far, more than 150 employees have gained this safety certificate, including 20 staff from Frequentis subsidiaries. In this way, extensive safety know-how is disseminated within the Frequentis Group and corresponding Group-wide safety expertise is generated.

The training programme leading to the safety certificate is used to train safety peers in a wide range of organisational units. Safety competence is a key corporate characteristic in safety-critical activities. Following initial collaboration with the FH Campus Vienna, since 2012 training has been carried out in cooperation with the International Safety System Society (ISSS). This has been made possible by the election of Gabriele Schedl, Director of Safety Management at Frequentis, as Regional Vice President Europe at ISSS.

Training for this certificate – which has to be upgraded every two years – will be continued in the coming years. That will further strengthen Group-wide safety competence. In addition, the results of the analysis are used for continuous improvement of products and internal workflows.

To ensure role-specific safety training and to be able to offer specific training for relevant functions at subsidiaries, the Safety Academy offers a wide range of safety training modules.

Security

The Frequentis Group supplies its solutions to operators of “critical infrastructure” and “essential services”. These are organisations that are vital for the functioning of society. Safety is contingent upon effective defence against attacks (= security). Changes in threat levels and statutory requirements have resulted in special challenges at present:

- New technologies (such as integration of data from the Internet of Things and the provision of safety-critical applications as software as a service [SaaS]) are increasing the complexity and vulnerability of systems.
- Due to (geo-)political changes, cyber warfare is gaining in significance alongside cybercrime and cyber terrorism. This is associated with targeted attacks conducted with a high level of resources and know-how.
- To address this risk, legislators around the world are preparing laws containing tougher cybersecurity safeguards. Consequently, demand from Frequentis' customers for proven, auditable security architectures and processes is set to rise further.
- This trend is taking place in the context of the system safety standards that are established on the market, which conflict with the common measures to ensure cybersecurity such as rapid elimination of IT security vulnerabilities.

To address these challenges, Frequentis has an extensive security organisation covering all business processes. The objective is, on the one hand, to protect the company, and on the other, to help customers ensure system security in their operations and provide the necessary evidence for regulatory authorities.

The more intensive collaboration between the system supplier, system integrator, and system operator required for this opens up wide-ranging opportunities for Frequentis to deepen customer relationships and strengthen its competitiveness. In the context of these challenges, Frequentis positions itself as a global expert for the integration of system safety and cybersecurity requirements.

The following units work together in the Frequentis Security Organisation:

- **Security Governance** and Support, headed by the **Chief Information Security Officer**. Security Governance is authorised to issue policies and provides tools and expertise. It includes IT Security, System Security, Service Security, Physical Security, Personnel Security, Managed Supplier Security, and further units.
- Implementation of security in business processes. For this purpose, **security engineers** have been implemented in product, project, and service teams. The business domains have **security agents** who coordinate cross-functional security activities.
- Strategy and innovation are driven forward on a top-down and bottom-up basis by cross-functional teams. This is ensured by the strategic focus of the **Security Steering Committee** at Executive Board level and the **Security Community**, which is open to all employees.

In 2022, special attention was paid to implementing security in business processes. A joint drive by the Vice Presidents of the business domains and Security Governance defined an extensive security improvement programme with more than ten sub-projects. These focus on preparing for anticipated changes in the market and the challenges faced by Frequentis' customers and are continuing in 2023. An initial outcome is the establishment of the ATM Cybersecurity Center of Excellence.

Frequentis has a very active Security Community. This is an open platform for interested employees to discuss and reflect on current security-related topics. The community also invites experts to give talks on specific topics.

It is therefore a platform for joint creation of innovations, standards, and guidelines and for sharing examples of best practices. Twelve Group-wide security events were held in 2022, all in hybrid format.

In 2022, the various security teams focused on the following activities:

System Security

The System Security team bears Group-wide governance responsibility for the security of Frequentis products and solutions delivered to customers. It also provides security expertise for Frequentis projects.

In addition to some structural adjustments such as refining processes and requirements, the focus in 2022 was on designing a security training and certification programme. Following the kick-off at the end of the reporting period, the pilot phase with this training programme has been running since January 2023. After a further pilot phase this year, the intention is to roll it out to the entire Frequentis Group.

Service Security

The software-based solutions supplied by Frequentis require broadly based support knowledge, ranging from extensive operational support to support for specific tasks and responsibilities. Within the Customer Service function, the role of Service Security is to provide support on security-related issues. This includes managed services (technical operation) and technical assistance as a service.

A new Service Security Policy was introduced and rolled out in 2022. This contains the related governance requirements for the entire Frequentis Group. These guidelines ensure that Frequentis can provide services (managed services and platform as a service) for both customers and the company itself throughout the life cycle of its products, and integrated solutions to enable secure operation of installations, most of which are classified as safety-critical, over a period of many years.

IT Security

Companies around the world have been a focus for hackers and cybercrime for many years. Identity theft and data theft are major areas of cybercrime. As a company operating in the safety-critical area, Frequentis takes special precautions to avoid cybercrime in the form of attacks on its in-house IT infrastructure. In light of the war in Ukraine, Frequentis constantly evaluated the information security situation in 2022 and extended protection as necessary. Protection of the Frequentis network, including all subsidiaries and external access, is therefore always state-of-the-art.

Employees are an important factor in this. To ensure the greatest possible awareness of this throughout Frequentis, all employees in the Group have been required to complete an Information Security Awareness Training module since 2015. Information Security Awareness Training is a compulsory module has to be repeated every two years.

To further sharpen employees' awareness, there are also regular Group-wide phishing campaigns. Everyone who uses the Frequentis networks receives simulated phishing emails. Their response is automatically evaluated, and feedback is published in the intranet and the staff newsletter. Phishing campaigns are used to train employees to report phishing mails via functions that are integrated into the mail systems. This is supplemented by lectures given by experts throughout the year and by other opportunities for sharing information within the community. In 2022, internal IT services were not affected by outages caused by successful cyberattacks.

These activities are constantly supported by a range of communication measures under the motto "You are the key to security".

Personnel security

Personnel-related security measures include protecting staff from possible threats. Examples are a buddy principle for business travel to crisis-hit regions and preventive measures, including insurance, to cover employees who become ill or are required to quarantine while on business trips. When war broke out in Ukraine at the end of February 2022, a ban was imposed on business travel to Ukraine, Russia, and Belarus, with an obligation to obtain permission for travel that is deemed to be absolutely essential.

Moreover, new employees are subject to an extensive background check. Together with the corresponding training, this is designed to raise the awareness of Frequentis employees about the special nature of the safety-critical sector in which the company works.

Physical security

Critical infrastructure like that operated by Frequentis' customers is increasingly exposed to the threat of sabotage, terrorism, and industrial espionage. Attacks on critical infrastructure are occurring more frequently through suppliers. As a trustworthy partner to its customers and in its own interest, the Frequentis Group therefore has to take action to prevent such attacks.

GRI 3-3

Based on the Physical Security Policy introduced in 2021, physical security standards have been tightened throughout the Group. For example, a new access system has been installed at the Group's headquarters in Vienna. Improvements are continuously implemented at all sites.

Security Incident Response Team (SIRT)

This team is responsible for monitoring security warnings, implementing preventive measures, and responding to security incidents.

A particular focus in 2022 was on expanding the core team and revising the incident response processes. Guidelines and workflows were developed for internal coordination and analysis of security vulnerabilities. These define how to communicate with external customers and partners.

Another focus was an inventory of the services offered by SIRT. An internal service catalogue was developed. This lists the services and how they can be measured. The services were evaluated to check their efficiency and the expectations within the company. A Vulnerability Watch Service was designed to compile information on vulnerabilities that are detected. This gives project and service teams a significant information edge and facilitates targeted communication with customers and partners.

National and international networking with security teams in the public sector and Frequentis' market segments has been stepped up to share information on acute threats. In 2022, it was possible to track potential attacks so that no serious security incidents occurred.

Networking with international safety and security communities

Many of Frequentis' customers operate "critical infrastructure". Such infrastructure is especially important for people, the environment, essential supply services, transport, and safety. As a supplier of safety-critical systems, the Frequentis Group is aware of its special responsibility. Therefore, it gives high priority to active participation in national and international safety and security communities, platforms, and bodies. These assess future risks, develop strategies, and share experience. In critical circumstances, it is therefore possible to rely on exchange with trusted experts, for example, in the event of a major infrastructure attack.

In 2022, Frequentis actively contributed to the following communities:

- Austrian CERT (Computer Emergency Response Team) network
- FIRST (global Forum of Incident Response and Security Teams)
- EUROCAE (European Organisation for Civil Aviation Equipment) Working Group 72
- Cyber Security Platform Austria
- CANSO (Civil Air Navigation Services Organisation): Cyber Safety Task Force
- CANSO: Next Generation SMS Workgroup
- CANSO: Human Performance Working Group
- EASA (European Union Aviation Safety Agency): rule-making task analysis
- ISSS (International System Safety Society)
- ISC(2) International Information System Security Certification Consortium

Data protection

The European Union's General Data Protection Regulation (EU GDPR) requires every company to apply the European data protection principles in its corporate activities and to require staff to respect data privacy and the confidentiality of business and operating secrets.

As a technology supplier and service provider, responsible handling of data, especially personal data, is vital for Frequentis. Ensuring the security of data, especially personal data, has top priority both when implementing and servicing customer systems and with regard to internal systems. Data protection and data security go hand in hand. Frequentis treats data confidentially as a matter of course and data are always collected and processed in compliance with the applicable legal provisions. Wherever possible, the company uses established management systems to structure information security (ISO 27001) and quality management (ISO 9001).

Since May 2018, Frequentis has had its own Data Protection Officer. Frequentis constantly applies the requirements of the GDPR and the local laws adopted to implement it. Activities to execute the GDPR in the Frequentis Group include, for example, revising Group policies and processes on handling personal data, continuously upgrading process documentation, preparing, and revising document and contract templates, and regularly reviewing and updating the technical and organisational measures for which the company is responsible.

The data protection officers appointed by headquarters and the subsidiaries work to ensure legally compliant handling of personal data throughout the Frequentis Group at all times. Their tasks include driving forward company-specific data protection measures and regular consultation with the management and the specialist departments involved.

Every two years, employees must complete mandatory e-learning modules on personal data protection. The content focuses on protecting the personal data of employees, customers, and suppliers. These compulsory training modules have a firm place in Frequentis' training programme. The concepts for security awareness and the security organisation are subject to ongoing development and are revised to reflect the latest conditions. Worldwide, 86% of employees at majority-owned companies in the Frequentis Group have fulfilled the data protection training obligation. The next training round starts in the second quarter of 2023. The process to meet the obligation to report breaches of data protection was recently reviewed and revised.

Predefined workflows and templates are used to meet the requirements to enable data subjects to exercise their rights and to deal with any possible breaches of data protection. In 2022, there were several requests for data erasure or information on data processing. No complaints relating to Frequentis AG or its subsidiaries in respect of data protection law were submitted to a data protection authority.

These precautions enable Frequentis to ensure a high level of data protection. Thanks to its cautious approach, there were no substantiated complaints about breaches of customer privacy or the loss of customer data in 2022. Together with the current initiatives to heighten data security and safety, data security in the Frequentis Group is continuously being strengthened.

GRI 418-1

Risk-impact analysis

Social and employee matters

Material topics	Occupational health and safety	Long-term job security	Training and CPD	Flexible and family-friendly working time models	Support for social projects	Diversity
Risks	<ul style="list-style-type: none"> Physical and mental health impairments Shortage of skilled workers due to lack of training or inadequate training Intercultural misunderstandings 					
Impact on non-financial matters	<ul style="list-style-type: none"> Unfair remuneration Work-related accidents Physical and mental illness Lack of training and advancement opportunities Constraints on innovation and progress Mental health and family-related stress Social tensions Discrimination 					
Impact on Frequentis' business activities	<ul style="list-style-type: none"> Loss of reputation with customers and new employees Higher order losses Loss of specialist expertise Reduction in competitiveness and quality Increased project and human resources costs Increased sickness-related absences Lack of teamwork Skills shortage Loss of staff Failure to utilise the potential of diversity and innovation 					
Concepts, due diligence processes, action	p. 81ff	p. 80f	p. 82, p. 84f.	p. 83f	p. 88f	p. 80f

Environmental matters

Material topics	Energy consumption and energy efficiency	Waste management	Re-use/refurbishment of products	Environmentally friendly inputs and processing aids
Risks	<ul style="list-style-type: none"> Physical and economic risks resulting from climate change, e.g. extreme weather events Failure to comply with regulations on the circular economy 			
Impact on non-financial matters	<ul style="list-style-type: none"> High energy consumption in production and during use by customers Environmental impact of emissions Negative impact on climate change 	<ul style="list-style-type: none"> Increased volume of waste 	<ul style="list-style-type: none"> Accelerated depletion of resources Increased volume of electronic waste 	<ul style="list-style-type: none"> Damage to the ecosystem Increased volume of waste Pollution caused by non-recyclable materials
Impact on Frequentis' business activities	<ul style="list-style-type: none"> Increased costs (e.g. electricity, waste disposal costs, cost of materials, adaptations) Threat of lost orders due to failure to comply with international regulations (e.g. United Nations, EU Regulations) Criminal proceedings due to environmental damage, breaches of compliance, etc. Disruption of supply and supply bottlenecks due to weather events Reputational damage 			
Concepts, due diligence processes, action	p. 90ff	p. 93f	p. 92f	p. 90, p. 94f.

Respect for human rights

Material topics	Observance of human rights	Diversity and equality of opportunity	Worker protection
Risks	<ul style="list-style-type: none"> Failure to respect human rights, workers' and social provisions, and basic rights such as child labour, forced labour, right to freedom 		
Impact on non-financial matters	<ul style="list-style-type: none"> Breaches of human rights, workers' and social provisions, and basic rights Social tensions Physical and mental illness Unfair remuneration Discrimination 		
Impact on Frequentis' business activities	<ul style="list-style-type: none"> Criminal consequences Loss of reputation with customers and new employees Higher order losses Reduction in competitiveness and quality 		
Concepts, due diligence processes, action	p. 97ff	p. 87f.	p. 81f

Fight against bribery and corruption

Material topic	Compliance with national laws and regulations	Integrity and business ethics	Compliance with the CSR Code at all stages in the supply chain
Risks	<ul style="list-style-type: none"> • Bribery and corruption • Unfair competition • Supply chain risks 		
Impact on non-financial matters	<ul style="list-style-type: none"> • Damage to the economy and fair competition • Negative impacts on government tax receipts • Undermining the rule of law • Wasting state resources due to increased legal costs 		
Impact on Frequentis' business activities	<ul style="list-style-type: none"> • Loss of orders and exclusion from future tenders • Criminal consequences • Reputational damage • Negative impact on the share price and financial opportunities 		
Concepts, due diligence processes, action	p. 97ff	p. 87, p. 97	p. 97ff

Safety, security & data protection

Material topics	Ensuring data protection	Measures to prevent cybercrime	Safety awareness	Fail-safe systems
Risks	<ul style="list-style-type: none"> • Breach of data protection • Cybercrime • Security threats • Outage of safety-critical systems 			
Impact on non-financial matters	<ul style="list-style-type: none"> • Data losses • Increase in cyberattacks and cybercrime • Misuse of data • Risk to safety-critical infrastructure • Risk to human life 			
Impact on Frequentis' business activities	<ul style="list-style-type: none"> • Loss of orders and exclusion from future tenders • Criminal consequences • Reputational damage • Reduction in competitiveness and quality 			
Concepts, due diligence processes, action	p. 104, p. 110f	p. 104, p. 108f	p. 104ff	p. 104ff

ESG outlook

Sustainability is a fundamental element in Frequentis' holistic corporate culture and covers the entire value chain.

GRI-2-22

Work on the various aspects is continuing in 2023 on the basis of the concepts that are already in place. The Frequentis Group is committed to continuously improving its social and ecological performance in all aspects, fulfilling its compliance obligations, and actively working towards sustainable development. The indicators compiled in the past for management purposes and to measure the effectiveness of the action taken will be mapped to the GRI indicators in a stepwise development process. The goal is a Group-wide rollout. Work on further suitable GRI parameters is continuing, taking into consideration the SDGs.

Another major focus is on introducing further improvements. These are prepared by the responsible departments, and then discussed and prioritised by the ESG Steering Board led by CFO Peter Skerlan as part of an ESG management review.

Guidance for the Group-wide rollout comes from the new ESG strategy adopted in 2023, which embeds sustainability in Frequentis' corporate strategy from 2023. This aims to strengthen Group-wide ESG awareness and to establish a broadly based understanding of the actions to be taken. All activities will be carried out in keeping with Frequentis' Corporate Governance Policy.

At the same time, the focus is on extending the ESG organisation, especially with a view to the upcoming requirements of the CSRD (EU Corporate Sustainability Reporting Directive). Although the reporting obligations only become mandatory in 2024, preparatory work needs to start far sooner.

The CSRD will greatly expand and standardise the present non-financial reporting obligations on the environmental, social and human rights, and governance aspects. A significant contribution to this is the clarification of the principle known as double materiality. Information that is necessary to understand the impact of sustainability aspects on business development, business performance, and the company's situation will have to be reported. Additional information that is necessary to understand the impact of the company's activities on the environment and society will also be required. Moreover, mandatory reporting standards – the European Sustainability Reporting Standards (ESRS) – should standardise the content of reports.

For a Safer World: Safe – Secure – Sustainable!

KPIs for non-financial reporting

In the past, KPIs were compiled for headquarters as part of the certification process for ISO 9001, 14001, and 18001 (45001). As a result, the following list currently only contains the KPIs for Frequentis AG on a stand-alone basis. The data are gradually being extended to include relevant subsidiaries (based on relevance for the respective KPI). Where this has already been done, the data for the Group are also reported.

Social and employee matters

All figures in this chapter refer to the average headcount.

	2022	2021	2020
Average headcount – Frequentis Group	2,193	2,157	1,907
thereof male	77%	78.3%	77.8%
Executive Board / Managing Directors	30	29	26
1 st management level	39	26	n.a.
Other managers	156	149	n.a.
thereof female	23%	21.7%	22.2%
Executive Board / Managing Directors	0	0	1
1 st management level	6	4	4
Other managers	27	25	n.a.
Average headcount – Frequentis AG	996	999	984
thereof male	75%	78.3%	77.0%
Executive Board		until 1 April 2021: 2 from 1 April 2021: 3	2
1 st management level	29	26	n.a.
Other managers	100	88	n.a.
thereof female	25%	21.7%	23.0%
Executive Board		until 1 April 2021: 1 from 1 April 2021: 0	1
1 st management level	5	4	n.a.
Other managers	14	14	n.a.
New hires – Frequentis Group	276	448	207
thereof male	184	359	157
thereof female	92	89	90
New hires – Frequentis AG	87	92	73
thereof male	52	69	56
thereof female	35	23	17
Exits – Frequentis Group	220	212	177
thereof male	166	162	142
thereof female	54	50	35
Exits – Frequentis AG	70	64	78
thereof male	52	52	61
thereof female	18	12	17

GRI 2-7

GRI 401-1

	2022	2021	2020
Employee turnover – Frequentis Group			
New hires	13.3%	20.7%	10.9%
Exits	10.6%	9.8%	9.3%
thereof employees	7.8%	n.a.	n.a.
thereof employer	1.7%	n.a.	n.a.
thereof natural fluctuation	1.0%	n.a.	n.a.
Employee turnover – Frequentis AG			
New hires	9.2%	9.2%	7.4%
Exits	7.4%	6.4%	7.9%
thereof employees	5.8%	n.a.	n.a.
thereof employer	1.0%	n.a.	n.a.
thereof natural fluctuation	0.6%	n.a.	n.a.
Employees – Frequentis Group			
Part-time	344	315	241
thereof male	164	197	152
thereof female	180	118	89
Parental leave	53	51	49
thereof male	22	23	22
thereof female	31	28	27
Special dispensation	66	62	60
thereof male	38	25	24
thereof female	28	37	36
Training leave	3	4	5
thereof male	1	4	3
thereof female	2	0	2
Part-time training leave	5	7	8
thereof male	5	6	7
thereof female	0	1	1
Phased retirement	10	n.a.	n.a.
thereof male	7	n.a.	n.a.
thereof female	3	n.a.	n.a.
Employees – Frequentis AG			
Part-time	168	146	129
thereof male	79	65	50
thereof female	89	81	79
Parental leave	49	44	43
thereof male	21	20	20
thereof female	28	24	23
Special dispensation	43	42	50
thereof male	28	21	32
thereof female	15	21	18
Training leave	3	4	2
thereof male	1	4	1
thereof female	2	0	1
Part-time training leave	5	7	8
thereof male	5	6	7
thereof female	0	1	1
Phased retirement	10	n.a.	n.a.
thereof male	7	n.a.	n.a.
thereof female	3	n.a.	n.a.

GRI 401-1

GRI 401-3

	2022	2021	2020
Average length of employment – Frequentis AG	10.2	10.2	9.8
Average age – Frequentis Group			
Total	42	43	42
Executive Board	56	55	56
1 st management level and other managers	48	45	47
New hires	36	39	35
Average age – Frequentis AG			
Total	43	42	42
Executive Board	56	55	56
1 st management level	52	52	52
Other managers	48	47	47
New hires	35	35	32
No. of nationalities – Frequentis Group	56	55	55
No. of nationalities – Frequentis AG	35	38	40
No. of appraisal interviews held – Frequentis Group	64%	67%	83%
No. of appraisal interviews held – Frequentis AG	87%	88%	89%
No. of courses offered Group-wide¹	491	469	420
thereof distance learning	422	427	311
No. of classroom training sessions – Frequentis AG	220	35	216
thereof with internal instructors	61.4%	88.6%	84.3%
No. of Group-wide¹ virtual classroom training sessions	424	454	262
thereof with internal instructors	81.8%	92.3%	90.8%

¹ Employees from all subsidiaries can book/participate in Group-wide training sessions and courses so it is not possible to draw a distinction between Frequentis AG and the Frequentis Group.

Environmental matters

	2022	2021	2020	
Energy – Frequentis AG				<i>GRI 302-1</i>
Total energy consumption in kWh	6,467,390	6,994,086	6,513,575	
Consumption by type of fuel: natural gas in kWh	396,271	1,079,790	455,013	
Consumption of electricity by buildings in kWh	6,071,119	5,914,296	6,058,562	
Self-generated electricity (max. p.a.) in kWh	131,662	115,300	115,300	
Purchase of electricity from renewable sources	100%	100%	100%	
Total energy consumption of systems approved for delivery to customers' locations in W	89,908	96,563	135,092	<i>GRI 302-2</i>
Total energy consumption as a percentage of total operating performance	2.5%	2.1%	2.9%	<i>GRI 302-3</i>
Total energy consumption per employee in kWh	6,496	6,925	6,647	
Consumption by type of fuel: natural gas per employee in kWh	398	1,069	464	
Total energy consumption by buildings per employee in kWh	6,098	5,856	6,182	
Consumption by type of fuel: natural gas per m ² heatable area in kWh	17.4	47.5	20	
Self-generated energy (max. p.a.) per employee in kWh	132	114	118	
Average consumption by customer systems in W	281	386	313	
Emissions – Frequentis AG				
Direct GHG emissions (Scope 1) from consumption of natural gas and fuel for company cars in tonnes CO ₂ (eq)	378	218	92	<i>GRI 305-1</i>
Energy indirect GHG emissions (Scope 2) in tonnes CO ₂ (eq)	0	0	0	<i>GRI 305-2</i>
Other indirect GHG emissions (Scope 3) in tonnes CO ₂ (eq)	1,375	718	646	<i>GRI 305-3</i>
Waste generated by operations	11	12	12	
Business trips ¹	1,363	706	634	
Hire cars	36	43	n.a.	
Flights	1,328	663	634	
No. of flight legs on business trips ¹	10,995	4,084	3,474	
Waste – Frequentis AG				<i>GRI 306-3</i> <i>GRI 306-4</i>
Weight of waste generated in tonnes	64	45	52	
Non-hazardous waste	63	43	51	
Domestic waste and similar commercial waste	18.78	19.76	19.66	
Paper and cardboard packaging (mixed packaging materials)	14.27	8.71	8.34	
Mixed plastic packaging	4.28	3.96	3.52	
Waste paper, paper, and cardboard, not coated	4.01	3.61	4.94	
Waste wood for material recovery	3.68	2.34	5.92	
Mixed metal packaging	2.00	1.66	3.30	
Iron and steel waste	0.42	0.77	2.71	
Waste electrical and electronic equipment - small appliances	0.38	0.73	1.49	

¹ Frequentis AG and subsidiaries served centrally by Frequentis Travel Management

	2022	2021	2020
Electrical and electronic devices and device parts without environmentally relevant amounts of hazardous waste or substances	3.82	0.63	0.74
Waste electrical and electronic equipment - large appliances	0.00	0.42	0.00
Glass	0.24	0.18	0.35
Bulky waste	1.57	0.12	0.08
Sorted non-hazardous laboratory waste and residual chemicals	0.00	0.03	0.00
Waste wood	0.00	0.00	0.00
Waste wood for thermal recovery	0.14	0.00	0.00
Gases in steel pressure cylinders, non-hazardous	0.00	0.00	0.00
Organic waste for composting	0.00	0.00	0.13
Kitchen and food waste	9.08	n.a.	n.a.
Hazardous waste	1.50	1.70	0.38
Electrical and electronic devices and device parts, without environmentally relevant amounts of hazardous waste or substances	0.49	1.46	0.00
Screen devices	0.08	0.20	0.21
Waste electrical and electronic equipment – large equipment with hazardous properties	0.00	0.01	0.00
Synthetic coolants and lubricants	0.00	0.01	0.00
Paints	0.00	0.01	0.00
Unsorted or hazardous laboratory waste and residual chemicals	0.08	0.01	0.00
Pressurised containers (sprays) with residues	0.02	0.00	0.02
Iron containers, with residual content	0.63	n.a.	n.a.
Batteries	0.15	0.00	0.12
Lithium-ion batteries	0.05	n.a.	n.a.
Cooling and air-conditioning units with refrigerants containing CFC, HFC and HFC	0.00	0.00	0.03
Environmentally friendly vehicles – Frequentis AG			
Electric cars	17	9	6
Hybrid cars	10	8	2
PCs and workstations equipped with Skype and Teams functionality – Frequentis Group			
	100%	100%	100%
PCs and workstations equipped with Skype and Teams functionality - Frequentis AG			
	100%	100%	100%
Average no. of MS Teams meetings per month ¹	21,729	24,413	17,095

¹ MS Teams is implemented for the entire Group so it is not possible to draw a distinction between Frequentis AG and the Frequentis Group. The figures for 2021 and 2020 still include the figures for Skype for Business meetings.

Human rights, compliance & anti-corruption

	2022	2021	2020
Cases of corruption resulting in disciplinary action			
	0	0	0
Termination of contracts with suppliers due to violation of human rights	0	0	0
Fines in connection with corruption or competition law			
	0	0	0
No. of compliance enquiries from employees – Frequentis Group	14	36	12
No. of compliance enquiries from employees – Frequentis AG	12	27	11
Reports via the whistleblower platform (introduced in December 2021)	0	0	n.a.
Compliance training in face-to-face/virtual classroom sessions	3	4	3
Checking invoices for compliance with the requirements of the Group policy on anti-corruption, invitations, and gifts; cases referred – Frequentis AG	60	37	5
E-learning module “Business Ethics and Code of Conduct” mandatory for all employees (Group-wide)			
Frequentis Group (in % of total workforce)	84%	n.a.	n.a.
Frequentis AG (in % of total workforce)	82%	n.a.	n.a.
Online training in capital market compliance for all employees (mandatory) from 2020			
Frequentis Group (in % of total workforce)	85%	95%	85.1%
Frequentis AG (in % of total workforce)	84%	95%	94.4%
Supplier audits performed by Frequentis AG	9	5	4
Geographical structure of suppliers and service providers by order volume¹			
Europe	92.6%	90.0%	93.5%
North America	4.8%	6.9%	2.7%
Asia	0.6%	1.2%	2.0%
Australia	1.6%	1.0%	1.3%
South America	0.2%	0.5%	0.2%
Middle East	0.2%	0.3%	0.1%
Africa	0.0%	0.1%	0.7%
Geographical structure of suppliers and service providers based on order volume by Frequentis AG			
Europe	93.5%	89.9%	95.6%
North America	4.6%	7.0%	1.5%
Asia	1.0%	1.7%	1.3%
South America	0.3%	0.8%	0.3%
Middle East	0.3%	0.5%	0.1%
Africa	0.0%	0.2%	1.1%
Australia	0.2%	0.0%	0.0%

GRI 205-3

GRI 205-2

GRI 205-1

GRI 205-2

GRI 204-1

¹ Product and project-related procurement by Frequentis AG, Frequentis Deutschland GmbH, Frequentis Comsoft GmbH, Frequentis USA Inc., Frequentis Australasia Pty Ltd.

Safety, security & data protection

	2022	2021	2020
Total number of safety certificates issued – Frequentis Group	164	157	150
thereof newly issued “Basic” certificates	7	7	7
Additional “Upgrade” certificates	29	15	9
Total number of safety certificates issued – Frequentis AG	144	140	133
thereof newly issued “Basic” certificates	4	7	5
Additional “Upgrade” certificates	29	15	9
Training in safety-critical behaviour – Frequentis Group	85%	91%	74%
Training in safety-critical behaviour – Frequentis AG	84%	89%	79%
Occupational safety training – Frequentis AG	666	454	536
Work-related accidents – Frequentis AG	1	3	3
of which serious accidents	0	0	0
Near misses – Frequentis AG	2	3	2
Improvements derived from these accidents	1	3	2
Completed system security training sessions ¹ – Frequentis Group			
System Security Overview for Engineers	2	53	44
System Security Advanced for Engineers	0	32	26
Completed system security training sessions ¹ – Frequentis AG			
System Security Overview for Engineers	2	30	33
System Security Advanced for Engineers	0	15	16
Successful completion of “ Information Security Awareness Training ” – Frequentis Group	88%	86%	84%
Successful completion of “Information Security Awareness Training” – Frequentis AG	86%	84%	91%
Successful completion of “ Personal Data Protection ” training – Frequentis Group	86%	92%	83%
Successful completion of “Personal Data Protection” training – Frequentis AG	86%	93%	91%
No. of Group-wide Security Community events	12	11	13
Average no. of participants	51	25	22
Proven IT service outages due to cyberattacks	0	0	0

¹ In 2022, there was only one training session with two participants because the focus was on designing a new security training and certification programme.

GRI content index

The following list refers to the GRI Standards, which were used as a guide in selecting the key performance indicators.

Name of standard	No.	Topic-specific disclosure	Page no.
GRI 2: General Disclosures 2021	2-1	Organisational details	68, 69
	2-2	Entities included in the organisation's sustainability reporting	67
	2-3	Reporting period, frequency and contact point	66, 67
	2-4	Restatements of information	66
	2-5	External assurance	67
	2-6	Activities, value chain and other business relationships	68, 69, 70, 71, 103
	2-7	Employees	69, 80f, 116ff
	2-8	Workers who are not employees	Information will be published in NFR 2023, incl. data for 2022
	2-9	Governance structure and composition	72, 75f ↗ Corporate Governance Report
	2-10	Nomination and selection of the highest governance body	↗ Corporate Governance Report
	2-11	Chair of the highest governance body	72 ↗ Corporate Governance Report
	2-12	Role of the highest governance body in overseeing the management of impacts	72
	2-13	Delegation of responsibility for managing impacts	72
	2-14	Role of the highest governance body in sustainability reporting	72
	2-15	Conflicts of interest	↗ Consolidated financial statements, Note 38, ↗ Corporate Governance Report
	2-16	Communication of critical concerns	74, 99
	2-17	Collective knowledge of the highest governance body	72
	2-18	Evaluation of the performance of the highest governance body	73
	2-19	Remuneration policies	↗ Remuneration Report
	2-20	Process to determine remuneration	↗ Remuneration Report
	2-21	Annual total compensation ratio	↗ Remuneration Report
	2-22	Statement on sustainable development strategy	64, 71, 115
	2-23	Policy commitments	76f., 97ff

Name of standard	No.	Topic-specific disclosure	Page no.
	2-24	Embedding policy commitments	72, 75f
	2-25	Processes to remediate negative impacts	99
	2-26	Mechanisms for seeking advice and raising concerns	74, 98f
	2-27	Compliance with laws and regulations	94, 97ff
	2-28	Membership associations	77, 89
	2-29	Approach to stakeholder engagement	74
	2-30	Collective bargaining agreements	80
GRI 3: Material Topics 2021	3-1	Process to determine material topics	73, 74
	3-2	List of material topics	73
	3-3	Management of material topics	90, 97ff, 104, 109, 112ff
GRI 204: Procurement Practices 2016	204-1	Proportion of spending on local suppliers	103, 121
GRI 205: Anti-corruption 2016	205-1	Operations assessed for risks related to corruption	99, 121
	205-2	Communication and training about anti-corruption policies and procedures	97ff, 121
	205-3	Confirmed incidents of corruption and actions taken	97
GRI 206: Anti-competitive Behaviour 2016	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	97
GRI 301: Materials 2016	301-2	Recycled input materials used	92
	301-3	Reclaimed products and their packaging materials	92
GRI 302: Energy 2016	302-1	Energy consumption within the organisation	92, 119
	302-2	Energy consumption outside of the organisation	92, 119
	302-3	Energy intensity	92, 119
	302-4	Reduction of energy consumption	92
GRI 303: Water and Effluents 2018	303-1	Interactions with water as a shared resource	94
	303-2	Management of water discharge-related impacts	94
GRI 304: Biodiversity 2016	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	91
	304-2	Significant impacts of activities, products, and services on biodiversity	91

Name of standard	No.	Topic-specific disclosure	Page no.
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	94f, 119
	305-2	Energy indirect (Scope 2) GHG emissions	95, 119
	305-3	Other indirect (Scope 3) GHG emissions	95f, 119
	305-5	Reduction of GHG emissions	94ff, 103
GRI 306: Waste 2020	306-1	Waste generation and significant waste-related impacts	93
	306-2	Management of significant waste-related impacts	93
	306-3	Waste generated	119f
	306-4	Waste diverted from disposal	93, 119f
GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	102f
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	116f
	401-3	Parental leave	117
GRI 403: Occupational Health and Safety 2018	403-1	Occupational health and safety management system	76f, 81ff
	403-2	Hazard identification, risk assessment, and incident investigation	81, 83
	403-3	Occupational health services	81ff
	403-5	Worker training on occupational health and safety	82f
	403-6	Promotion of worker health	82f
	403-9	Work-related injuries	122
GRI 404: Training and Education 2016	404-2	Programmes for upgrading employee skills and transition assistance programmes	84ff
	404-3	Percentage of employees receiving regular performance and career development reviews	85, 118
GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	87, 118
	405-2	Ratio of basic salary and remuneration of women to men	80
GRI 406: Non-discrimination 2016	406-1	Incidents of discrimination and corrective actions taken	87
GRI 413: Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programmes	92
GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	102f
GRI 415: Public Policy 2016	415-1	Political contributions	103
GRI 418: Schutz der Kundendaten 2016	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	111

Sustainable Development Goals (SDGs)

In addition to the GRI Standards, Frequentis uses the United Nations Sustainable Development Goals for the sustainable alignment of the company. Frequentis also uses the relevant SDGs as a guide for the ongoing expansion and optimisation of its environmental and socio-economic performance.

Frequentis' wide-ranging corporate social responsibility (CSR) activities contribute to all 17 SDGs. Examples are activities relating to the supply chain and to occupational health and safety.

The long-term environmental targets based on the Austrian government's Agenda 2030 and continuous evaluation of possible improvements in facility management, project work, and circular economy also contribute to the SDGs. In this way, it is possible to make a contribution to the 12 SDGs of relevance for the environment.

Frequentis regularly undergoes various voluntary CSR ratings by a variety of institutions with different perspectives (customers, investors). Together with the applicable ISO certifications and the related independent audits, proposed improvements are derived, leading to continuous expansion of the sustainability activities.



EU Taxonomy

Since the 2021 financial year, Frequentis has been required to make disclosures in accordance with Article 8 of Regulation (EU) 2020/852 ("EU Taxonomy"). The EU Taxonomy, which came into force on 12 July 2020, aims to establish a common understanding of the environmental sustainability of economic activities and investments. Further, it sets out detailed technical criteria on which economic activities are deemed to be environmentally sustainable in order to orient capital flows towards a sustainable transformation within the meaning of the European Green Deal.

As a non-financial company that falls within the scope of the CSR Directive (future CSRD Directive), Frequentis is required by Article 8 of the EU Taxonomy Regulation to disclose, from 2022, the proportion of turnover, capital expenditure (CapEx), and operating expenditure (OpEx) derived from products or services associated with economic activities that qualify as environmentally sustainable.

An economic activity is deemed to be environmentally sustainable if it makes a substantial contribution to one of the six environmental objectives defined in the EU Taxonomy and, at the same time, does no significant harm to any of the other environmental objectives. At the same time, the economic activity must meet minimum social safeguards.

Whether an economic activity makes a substantial contribution to one of the environmental objectives is determined by mandatory technical screening criteria defined by the EU Commission. All of the defined criteria have to be met. At present, the EU Commission has defined technical screening criteria for two of the six environmental objectives, namely "climate change mitigation" and "climate change adaptation".

It is expected that disclosures on the other four environmental objectives of the EU Taxonomy Regulation (sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, protection and restoration of biodiversity and ecosystems) will be required for the first time from the 2023 financial year.

As the first step in fulfilling the requirements of the EU Taxonomy, in 2021 Frequentis analysed the list of economically sustainable economic activities to identify those that are applicable within the Frequentis Group. The results of this analysis of taxonomy eligibility showed that two economic activities are applicable to Frequentis:

	NACE code
8.1 Data processing, hosting and related activities (Annex 1)	J63.11
8.2 Computer programming, consultancy and related activities (Annex 2)	J62

In 2022, taxonomy alignment was screened using the technical screening criteria. For economic activity 8.1 Data processing, hosting and related activities, business and technical experts conducted a detailed examination of conformance with/fulfilment of the technical screening criteria set out in Annex 1 and documented the findings transparently. The findings show that, as at the reporting date, not all technical screening criteria were fulfilled. Therefore, as at 31 December 2022, the economic activity was not aligned with the EU Taxonomy Regulation. Action to fulfil the outstanding criteria is planned for the future. We assume that in the coming years progress will be made in the transition from taxonomy eligibility to taxonomy alignment based on fulfilment of the technical screening criteria.

Conformance with the minimum safeguards was also analysed in detail. This was closely based on the proposals set out in the report of the "EU Platform on Sustainable Finance" (October 2022). Existing in-house policies and instructions were examined for conformance with Article 18 of the EU Taxonomy Regulation. The focal areas were human rights, compliance and anti-corruption, workers' rights, and occupational safety. As well as internal respect for these focal areas, importance is placed on our suppliers complying with our Corporate Social Responsibility (CSR) values.

Turnover KPI

The total turnover used for this KPI comprises the revenues recognised in accordance with IFRS 15 in the consolidated financial statements as at 31 December 2022 ([↗ Annual Report / Consolidated financial statements / Consolidated income statement](#)).

The total turnover disclosed for Frequentis AG comprises the revenues recognised in accordance with the Austrian Commercial Code (UGB) and presented in the financial statements of Frequentis AG as at 31 December 2022.

Capital expenditure (CapEx) KPI

The total capital expenditure of the Frequentis Group comprises all additions to property, plant, and equipment, intangible assets, and right-of-use assets pursuant to IFRS 16 Leases in 2022 ([↗ Annual Report / Consolidated financial statements](#)).

The capital expenditure disclosed for Frequentis AG is derived from the individual financial statements of Frequentis AG as at 31 December 2022, prepared in accordance with the Austrian Commercial Code (UGB).

Operating expenditure (OpEx) KPI

The total operating expenditure of the Frequentis Group and Frequentis AG comprises the expenditures for non-capitalised research and development costs, leases, maintenance, and repairs incurred in 2022.

Taxonomy-eligible OpEx mainly comprises research and development costs, short-term leases, and the maintenance and repair of property, plant, and equipment incurred in connection with economic activity "8.1 Data processing, hosting and related activities".

Report on the independent audit with limited assurance of the consolidated non-financial report

Report on the independent audit with limited assurance of the consolidated non-financial report in accordance with 267a of the Austrian Commercial Code (UGB)

The German text of the signed report, which refers to the German version of the non-financial report for the financial year 2022, is the only legally binding version. The English translation has no legal effect. In particular, it cannot be used for the interpretation of the German text.

We have performed an audit with limited assurance of the consolidated non-financial report of Frequentis AG (hereafter: "the company"), Vienna. In the course of the spin-off of the auditing business of BDO Austria GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft, the audit engagement has been transferred to BDO Assurance GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft with all rights and obligations by way of universal succession with effect from 26 January 2023.

Summary judgement

Based on our audit procedures and the evidence we obtained, nothing has come to our attention that causes us to believe that the consolidated non-financial report for the financial year 2022 of the company was not prepared in accordance with the requirements of the Austrian Sustainability and Diversity Improvement Act, respectively section 267a of the Austrian Commercial Code (UGB) in all material respects.

Responsibility of the statutory representatives

It is the statutory representatives of the company who are responsible for the proper compilation of the consolidated non-financial report in accordance with the requirements of the Austrian Sustainability and Diversity Improvement Act, respectively section 267a UGB.

On the one hand, the legal representatives are responsible for selecting and applying appropriate non-financial reporting methods and for making assumptions and estimates for certain sustainability disclosures, that are reasonable in the respective circumstances. On the other hand, the responsibilities include the conceptualization, implementation, and maintenance of systems and processes that enable the preparation of sustainability reporting that is free from material misstatement, whether due to fraud or error. This also includes the creation of adequate documentation and the establishment of internal controls.

Auditor's responsibility

We have been engaged with providing a judgement, based on our audit procedures and on the evidence, we have obtained, as to whether anything has come to our attention that would cause us to believe that the consolidated non-financial report of the company as of 31 December 2022 does not conform in any material respect to the requirements of the Austrian Sustainability and Diversity Improvement Act, respectively Section 267a UGB.

We have performed our audit in accordance with the professional principles in force in Austria relating to general-assurance engagements (KFS/PG 13) and the International Standard on Assurance Engagements (ISAE 3000 (revised)) applicable to such matters. In this respect, we have to comply with our professional obligations, including the provisions on independence, and are bound to plan and carry out our assignment with regard to the principle of materiality in such a manner as allows us to deliver our judgement with limited assurance.

In a limited assurance engagement, the audit procedures undertaken are less extensive than in a reasonable assurance engagement, and therefore a lesser degree of assurance is obtained.

The choice of audit procedures is at the due discretion of the auditor and included in particular the following activities:

- Interviews with employees responsible for the materiality analysis at the group level, in order to gain an understanding of the procedure for identifying material sustainability topics and corresponding reporting boundaries of the company;
- Risk assessment, including media analysis, of relevant information on the sustainability performance of the company during the reporting period;
- Interviews with employees responsible for identifying and consolidating data, as well as for carrying out data-related internal control activities;
- Assessment of the conceptualization and implementation of systems and processes for identifying, processing and monitoring sustainability performance data and metrics included in the scope of the audit, including the consolidation of data;
- Inspection of selected internal and external documents to determine whether qualitative and quantitative information is supported by sufficient evidence and presented in an accurate and balanced manner;
- Analytical assessment of the data and trends of the quantitative information;
- Assessment of whether the requirements in accordance with Section 267a UGB have been

The following audits were not subject of our engagement:

- The audit of disclosures from previous years, future-oriented disclosures and data from external studies;
- The audit of references to the standards of the Global Reporting Initiative (GRI Standards 2021);
- The audit of the information in accordance with Article 8 of the EU Taxonomy Regulation ((EU) 2020/852).

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

The subject-matter of the engagement does not consist of performing either an audit or an audit-related review of the annual financial statements. Neither are the detection and investigation of fraudulent acts, such as misappropriation or other acts of defalcation or administrative offences, nor an assessment of the effectiveness and efficiency of the management a part of that subject-matter.

Restrictions on applicability

As our report is prepared exclusively at the client's request and in the client's interest, there exists no basis for third parties to place any reliance on its content. It therefore provides no grounds for third-party claims arising from it. Consequently, this report may not be disclosed to other third parties either in whole or in part without our express agreement.

Conditions of the engagement

We make this report on the basis of the engagement concluded with you, which is itself based on the AAB appended to this report. The AAB are also valid against third parties.

Vienna, 13. March 2023



BDO Assurance GmbH

Wirtschaftsprüfungs- und Steuerberatungsgesellschaft

(as universal successor BDO Austria GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft)

Mag. Gerhard Posautz
Wirtschaftsprüfer

Mag. Gerhard Fremgen
Wirtschaftsprüfer

Declaration by all legal representatives

We confirm to the best of our knowledge that the consolidated non-financial report contains the disclosures pursuant to Section 243b and Section 267a of the Austrian Commercial Code (UGB) and Regulation (EU) 2020/852 ("EU Taxonomy") that are necessary for an understanding of the business performance, results of operations, situation of Frequentis AG and its subsidiaries, and the impact of their activities and which relate, at a minimum, to environmental, social, and employee aspects, respect for human rights, and combating bribery and corruption. The disclosures include a description of Frequentis' business model and the concepts used with regard to the above aspects, including the due diligence processes applied, the material risks, the probable negative impacts on these aspects, the results of the concepts, and the key performance indicators.

Vienna, 13 March 2023



Norbert Haslacher
Chairman
of the Executive Board



Monika Haselbacher
Member
of the Executive Board



Hermann Mattanovich
Member
of the Executive Board



Peter Skerlan
Member
of the Executive Board



Group Management Report as at 31 December 2022

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Economic environment

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

The International Monetary Fund (IMF) published its World Economic Outlook Update in January 2023.¹ Despite the pandemic, it estimated that global GDP grew by 3.4% in 2022 and forecast growth of 2.9% for 2023. The forecast for 2023 is 0.2 percentage point higher than predicted in October 2022 but is below the historical (2000 -2019) average of 3.8%. The rise in central bank rates to fight inflation and Russia's war in Ukraine continue to weigh heavily on economic activity.

The rapid spread of COVID-19 in China dampened growth in 2022 but the recent reopening has paved the way for a faster-than-expected recovery. The balance of risks remains tilted to the downside, but adverse risks have moderated since the World Economic Outlook Update of October 2022. Global inflation looks set to fall from 8.8% in 2022 to 6.6% in 2023 and 4.3% in 2024. However, that would still be above the pre-pandemic level of around 3.5% (2017-2019).

The IMF estimates that the US economy grew by 2.0% in 2022 (2023:1.4%). Further, it anticipates that growth in the euro zone was 3.5% in 2022 (2023: 0.7%). For the major economies in the euro zone it predicts different growth rates in 2022 and 2023: the growth projections for 2022 are 1.9% for Germany (2023: 0.1%), 2.6% for France (2023: 0.7%), 3.9% for Italy (2023: 0.6%), and 5.2% for Spain (2023: 1.1%). The forecast for the UK is 4.1% growth in 2022 (2023: -0.6%).

For the emerging and developing economies in Asia, the projection is 4.3% growth in 2022 (2023: 5.3%). The IMF estimates that Latin America grew by 3.9% in 2022 (2023: 1.8%). The projection for the Middle East and Central Asia is 5.3% growth (2023: 3.2%).

¹ <https://www.imf.org/en/Publications/WEO/Issues/2023/01/31/world-economic-outlook-update-january-2023>

Business performance

The operating business was still held back to some extent by the COVID-19 pandemic, which subsided during 2022. The war in Ukraine, which started in February 2022, indirectly impacted the Frequentis Group through higher inflation (initially for electricity, gas, and fuels). Inflation then filtered through to the cost of goods sourced from suppliers, salary rises, and thus earnings.

Revenues rose, partly due to the companies acquired from L3Harris Technologies during 2021, which were included in the financial statements for the full year in 2022, and the acquisition of the Italian company Regola in January 2022. Thanks to Frequentis' stable business model as a provider of communication and information systems for control centres in the safety-critical sector, demand remains high, as shown by the increase in order intake.

Significant events in 2022

Acquisition of Regola

On 5 January 2022, Frequentis acquired a 51% interest in Regola S.r.l. (based in Turin, Italy). This Italian company's innovative software solutions complement Frequentis' public safety product portfolio and therefore support its long-term growth strategy in this business domain.

Frequentis and Regola supply integrated control room solutions to improve the response of emergency services. Regola's command and control (CAD) solutions complement Frequentis' portfolio in the area of public safety and adjacent markets. Its main product is the UNIQUE CAD product family, accompanied by products offered on a software-as-a-service basis. The aim is to step up international marketing.

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

Investment in Aviamaps

In September 2022, Frequentis acquired a 25% stake in the Finnish software producer Aviamaps Oy. This company's software enables users of its platform to book drone flights directly online by clicking on a map (real-time aviation maps platform). This platform is a user-friendly flight planning and airspace management tool. In 2023, Aviamaps' software will be integrated into the Frequentis solution for automatic approval of drone flights in Austria. Frequentis has worked with this company on drone research projects in the past.

75th-year anniversary of Frequentis

In 2022, Frequentis celebrated its 75th anniversary. From its origins as a small company – what would be called a start-up today – founded by two ambitious engineers in post-war Vienna in 1947, it grew first into a medium-sized company and eventually into a successful global group of companies.

The distinctive culture with a safety-critical focus plays a key role in the success of the Frequentis team. 75 years of experience with projects in the safety-critical sector have resulted in extensive expertise and a deep understanding of customers' needs. Frequentis intends to continue to use this knowledge on the world's markets in the future – wherever the mission is to protect people and property.

Impact of the geopolitical situation

Almost concurrently with the weakening of the COVID-19 pandemic, war broke out in Ukraine in Eastern Europe. As well as causing immense local suffering, this affected Frequentis' internal and external stakeholders in many ways.

The war in Ukraine did not have a relevant impact on Frequentis' revenues because total revenues generated with Ukraine, Russia, and Belarus in 2022 were less than EUR 100 thousand. Indirectly, it resulted in higher prices, especially for electricity, gas, and fuels. Consequently, prices of other everyday products rose, so inflation increased sharply almost everywhere in the world and was well above the average of recent years. This resulted in the need to adjust prices for existing and new customer projects. The inflation-related salary adjustments under individual and collective salary agreements are reflected in the Frequentis Group's personnel expenses in both 2022 and 2023.

Frequentis was affected to some extent by supply chain bottlenecks and, in some cases, sharp increases in procurement prices and delivery delays. The increase in inventories was mainly due to increased stocking of components to ensure an adequate safety net to meet long-standing delivery and maintenance obligations despite the withdrawal of products by producers and supply bottlenecks.

Impact of the COVID-19 pandemic

From March 2020, Frequentis had an internal coronavirus crisis team. This was an interdisciplinary team composed of representatives of relevant departments and headed by the Chairman of the Executive Board. The crisis team met at regular intervals, depending on the course of the pandemic, to evaluate the situation and define the action to be taken.

The measures were scaled back from early summer 2022 as the pandemic subsided, but some general precautions such as mandatory testing of participants at large meetings remained in place until the end of the year.

The principal areas of action that enabled Frequentis to navigate the COVID-19 pandemic well were health & safety and facility management, plus increased use of digital technologies, both internally and with customers and partners.

Important factors in this were customers' strong confidence in Frequentis, while their flexibility and creativity supported the ability to find good solutions. Despite the ongoing travel restrictions, it was therefore possible to continue to work on projects remotely (via video conferences) and perform acceptance procedures.

Frequentis' corporate culture permitted mobile working practices before the pandemic (working from home or on-site at customers' premises), so both employees and the existing IT infrastructure handled the extensive shift to working from home very well.

Experience during the pandemic provided some key lessons that can be used for Frequentis' long-term sustainable development. The findings and experience include important impetus for more extensive use of digital opportunities such as modifying processes and tools to optimise remote working and to drive forward product innovations.

Order intake

Order intake in the Frequentis Group was EUR 404.8 million in 2022, an increase of 21.5% (EUR 71.6 million) compared with 2021, when order intake was EUR 333.2 million.

The distribution of order intake between the two segments in 2022 was as follows: Air Traffic Management 68% (EUR 275.4 million) compared with 69% in 2021 (EUR 230.4 million), Public Safety & Transport 32% (EUR 129.4 million), compared with 31% in 2021 (EUR 102.8 million).

Highlights of order intake in the Air Traffic Management segment

Frequentis' Air Traffic Management segment acquired a wide variety orders across its product range from all over the world.

Demand for remote digital towers remains consistently high. The French air navigation service provider, DSNA (Direction des Services de la Navigation Aérienne), has placed an order with Frequentis to supply its state-of-the-art remote digital tower solution for France.

In the area of drones, the Australian air traffic control organisation has selected Frequentis to participate in the tender procedure for the country's first Flight Information Management System (FIMS). This system will support the secure integration of drones as emerging airspace users into Australia's low-altitude airspace.

The Austrian air navigation service provider Austro Control and Frequentis have started to build a digital traffic management solution for secure integration of drones into Austrian airspace.

The German armed forces have awarded Frequentis a contract to deliver IT equipment for the National Air Defence command centre. The Frequentis command and control system will support the "National Situation and Command Centre for Security in Airspace" in securing German airspace. With the support of this system, security-critical scenarios such as unauthorised intrusion into airspace, aircraft hijackings, and terrorist attacks can be handled efficiently and effectively.

The Royal Netherlands Airforce has decided to replace its three existing voice communication systems (VCS) with a single system. In the international selection procedure, the Frequentis Secure VCS proved the safest, most suitable, and most economically advantageous solution.

Highlights of order intake in the Public Safety & Transport segment

In the Public Safety & Transport segment, the Public Safety business domain increased its market leadership with the emergency services in Germany by securing an order to supply a system to connect the emergency rescue services and fire brigades to the safety-critical digital communication network in the federal state of North Rhine-Westphalia as well as an order for an integrated control centre solution for the federal state of Saarland.

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

Through an innovation partnership with Austrian Federal Railways, Frequentis is working on hangar-based drone operations. Routine maintenance flights by drones could quickly detect damage to infrastructure or hazards in the vicinity of the track so they can be dealt with swiftly.

In the Maritime business domain, Frequentis acquired an order to upgrade the control centre communications for the coastal surveillance (search and rescue) services in Australia and Iceland, as well as orders from the installed base, for example from the Dutch coastal surveillance organisation.

Orders on hand

Orders on hand amounted to EUR 522.0 million as at 31 December 2022 (including orders on hand at the new acquisition, Regola). That was an increase of 11.6% or EUR 54.1 million compared with year-end 2021 (EUR 467.9 million). The Air Traffic Management segment accounted for around 63% of total orders on hand (December 2021: 64%) and the Public Safety & Transport segment for 37% (December 2021: 36%).

Revenues and operating performance

In 2022, revenues increased by 15.7% (EUR 52.4 million) to EUR 386.0 million (2021: EUR 333.5 million). Organic growth – i.e. growth excluding the acquisition of the Italian company Regola in 2022 – was 12.7%.

Revenues in the Air Traffic Management segment grew by 17.3% to EUR 257.8 million. In the Public Safety & Transport segment, revenues increased by 12.4% to EUR 127.7 million. The revenue split between the Air Traffic Management and Public Safety & Transport segments was 67% : 33% in 2022 (2021: 66% : 34%).

Looking at the regional revenue split, in 2022 Europe accounted for 65% (2021: 68%), the Americas for 16% (2021: 15%), Asia for 12% (2021: 9%), Australia/Pacific for 5% (2021: 5%), and Africa for 2% (2021: 2%). Less than 1% (2021: 1%) of revenue was not allocated to a region.

The change in inventories of finished goods and work in progress was less than EUR 0.1 million in 2022 (2021: EUR -0.2 million). Own work capitalised rose to EUR 2.6 million (2021: EUR 0.1 million), mainly due to voice communication systems produced in 2022 for leasing.

The other operating income increased to EUR 10.5 million (2021: EUR 9.5 million). The biggest single items here are grants and subsidies for research and development costs and income from research subsidies.

No profit from business combinations was recorded in 2022. In 2021, there was a profit from business combinations of EUR 2.0 million resulting from the L3Harris transaction.

The operating performance increased by 15.7% to EUR 399.1 million in 2022 (2021: EUR 344.8 million).

Earnings

The cost of materials and purchased services increased by 31.1% to EUR 99.2 million (2021: EUR 75.7 million). This was attributable, among other things, to the acquisitions and to supply chain bottlenecks, which affected Frequentis to some extent (at times, it registered significant price rises and delays in the delivery of purchased goods). Personnel expenses rose 11.9% to EUR 203.9 million (2021: EUR 182.1 million). This was attributable to the acquisitions made in 2021 and 2022, salary rises, and the increase in the workforce.

The other operating expenses were 24.3% higher at EUR 50.3 million (2021: EUR 40.5 million), driven principally by higher travel and advertising expenses, for example for trade shows and the new companies acquired in 2021 and 2022. Since unrestricted travel is now possible and air fares have risen, travel expenses increased by EUR 5.3 million year-on-year to EUR 10.7 million in 2022. Even so, they are still lower than they were in 2019, before the COVID-19 pandemic (2019: EUR 11.9 million).

EBITDA (earnings before interest, taxes, depreciation, amortisation, and impairment losses) declined to EUR 45.6 million in 2022 (2021: EUR 46.5 million). The EBITDA margin (relative to revenues) was 11.8%, compared with 13.9% in 2021.

Depreciation and amortisation increased to EUR 17.5 million (2021: EUR 15.8 million). This increase was mainly due to higher additions of property, plant and equipment. Impairment losses of EUR 3.1 million were recognised in 2022 (2021: EUR 1.7 million) due to the impairment of product rights at ATRiCS Advanced Traffic Solutions GmbH and Frequentis Comsoft GmbH.

As a result of all the changes outlined above, EBIT decreased to EUR 25.0 million in 2022 (2021: EUR 29.0 million). The EBIT margin (relative to revenues) was 6.5%, compared with 8.7% in 2021.

Profit before tax was EUR 24.7 million in 2022 (2021: EUR 27.9 million). Income tax expense was EUR 5.9 million (2021: EUR 7.2 million), giving a tax rate of 23.7% (2021: 25.6%).

The profit for the period was EUR 18.9 million (2021: EUR 20.8 million). Basic and diluted earnings per share were EUR 1.41 in 2022 (2021: EUR 1.50).

Employees

Starting with the half-year report in 2022, the number of employees is now expressed as full-time equivalents (FTEs) as increasing use is being made of opportunities to work part-time. This development reflects the general trend on the labour market, where there is increasing demand for part-time jobs.

The number of employees increased by 7.4% to an average of 2,081 FTEs in 2022 (including the additional employees from the acquisition of Regola). The restated figure for 2021 was 1,937 FTEs.

Asset and capital structure

Total assets increased by 7.8% to EUR 340.3 million as at end-December 2022 (end-December 2021: EUR 315.7 million). This was partly attributable to an increase in contract assets. The equity ratio was 43.3% (end-December 2021: 41.1%). Equity increased by EUR 17.5 million to EUR 147.3 million (end-December 2021: EUR 129.9 million).

The net cash position (cash and cash equivalents and time deposits less liabilities to banks and other financial liabilities) was EUR 91.0 million as at end-December 2022, which was below the net cash position of EUR 101.1 million recorded at the end of December 2021.

Non-current assets amounted to EUR 80.4 million at the end of December 2022 (end-December 2021: EUR 72.6 million). The main items here were property, plant and equipment, which totalled EUR 53.3 million (end-December 2021: EUR 47.7 million), and intangible assets, which amounted to EUR 14.5 million (end-December 2021: EUR 17.7 million).

Current assets totalled EUR 259.8 million at the end of December 2022 (end-December 2021: EUR 243.1 million). The most important item here is cash and cash equivalents, including time deposits, which amounted to EUR 91.4 million (end-December 2021: EUR 106.0 million), followed by trade accounts receivable totalling EUR 77.0 million (end-December 2021: EUR 69.4 million), contract assets, which amounted to EUR 50.5 million (end-December 2021: EUR 38.4 million), and inventories, which totalled EUR 21.7 million (end-December 2021: EUR 17.1 million). The increase in inventories was mainly due to increased stocking of components to ensure an adequate safety net to meet long-standing delivery and maintenance obligations despite the withdrawal of products by producers and supply bottlenecks.

As at end-December 2022, more than 75% of total cash and cash equivalents and time deposits were deposited with eleven system-relevant major banks in Austria and Germany. Less than 25% were deposited with approximately 25 other banks in Europe, Australia, Asia, and the Americas.

On the liabilities side, the main item was equity of EUR 147.3 million as at end-December 2022 (end-December 2021: EUR 129.9 million). The second largest item comprised current liabilities, which amounted to EUR 131.0 million as at end-December 2022 (end-December 2021: EUR 125.2 million). Contract liabilities accounted for EUR 68.0 million of this amount (end-December 2021: EUR 65.4 million).

Non-current liabilities (third-largest item on the liabilities side) totalled EUR 61.9 million (end-December 2021: EUR 60.6 million). The biggest item here comprised non-current lease liabilities, which totalled EUR 30.8 million (end-December 2021: EUR 29.8 million).

Cash flow

The cash flow from operations fell to EUR 43.6 million in 2022 (2021: EUR 47.9 million).

The cash flow for operating activities decreased to EUR 14.2 million in 2022 (2021: EUR 48.8 million), mainly due to the change in contract assets and other receivables.

The cash outflow for investing activities was EUR 20.1 million in 2022, compared with an outflow of EUR 24.6 million in 2021. This includes all expenses for the acquisition of the Italian company Regola and the investment in the Finnish company Aviamaps. Capital expenditures (cash outflows for the purchase of intangible assets, property, plant and equipment) were EUR 10.1 million, which was higher than in 2021 (EUR 6.3 million). The cash outflows in 2022 were influenced by own work capitalised, mainly in connection with voice communication systems produced in 2022.

The cash outflow for financing activities was EUR 16.5 million in 2022, compared with an outflow of EUR 12.6 million in 2021. This was mainly due to loan repayments.

The total cash flow in 2022 was EUR -22.4 million (2021: EUR 11.5 million). Cash and cash equivalents, excluding time deposits, amounted to EUR 81.4 million as at end-December 2022 (end-December 2021: EUR 103.8 million).

Business relations with related parties

For details see [↗ Consolidated financial statements as at 31 December 2022, note 37](#).

Segment performance

Air Traffic Management / ATM

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

The business domains' products are similar and are based on the same product platform. In the Defence business domain, there is also demand for additional encryption solutions. The safety and

quality management requirements are the same: the international regulations for standardisation of air traffic issued by the International Civil Aviation Organization (ICAO) apply. Moreover, the infrastructure to be installed for customers (radar, radio transmission, networks) is similar.

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

Revenues in the Air Traffic Management segment increased by 17.3% to EUR 257.8 million in 2022 (2021: EUR 219.8 million). EBIT was EUR 10.2 million (2021: EUR 12.5 million).

Highlights from the operating business

Project acceptances took place around the world in 2022. They included key milestones and acceptances of voice communication systems for the British, French, Spanish, and Brazilian air navigation service providers. To handle the increased air traffic during the World Cup 2022 in Qatar, the country's voice communication system was upgraded and air traffic control at the airport tower was digitalised and modernised. State-of-the-art aviation message handling systems were taken into service in eight countries in Africa and in Argentina.

A prototype for multiple remote tower modules developed within the framework of the SESAR programme funded by the EU was set up and tested by Frequentis and the German Aerospace Centre (DLR) during validation exercises in Germany. Located in a remote tower centre outside the airport, these modules allow control of several airports from a single location. This supports centralisation of air traffic services (ATS) and the pooling of resources, thus providing efficiency gains.

Public Safety & Transport / PST

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

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

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

Revenues in the Public Safety & Transport segment increased by 12.4% to EUR 127.7 million in 2022 (2021: EUR 113.6 million). EBIT decreased to EUR 14.9 million (2021: EUR 16.6 million).

Highlights from the operating business

In the Public Safety business domain, the rollout of the regional solution for the police force in the German state of North Rhine-Westphalia should be highlighted. Frequentis has been presented with the International Critical Communications Award (ICCA) in the category control room innovations for the integration and brokering of multiform critical communications via the 3020 LifeX platform.

In 2022, the MissionX innovation was exhibited internationally for the first time at the Critical Communications World trade show in Vienna. MissionX is an integrated end-to-end (E2E) system solution for the operation of mission-critical communication services via 4G/5G networks.

The pilot phase of the EU's Horizon 2020 Broadway project was completed in 2022. In the final test after several years of development work, the BroadPort consortium led by Frequentis was able to demonstrate the practicability of a pan-European safety-critical broadband network based on the new international 3GPP MCX standard. The exercise involved more than 40 public protection and disaster relief organisations from across Europe and eight local Spanish authorities.

The Public Transport business domain achieved key milestones, for example in European rail projects. The Maritime business domain reported important project acceptances in Greenland and on the Faeroe Islands.

Research & development

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

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

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

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

Non-financial information

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

Consolidated corporate governance report

The consolidated corporate governance report is available at <http://www.frequentis.com/en/IR> > Corporate Governance.

Opportunity and risk management

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

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

To simplify the communication channels that can be used internally and externally to report such breaches, Frequentis introduced a whistleblower system at Group level at the end of 2021. This is available both via the company's website at www.frequentis.com/en/whistleblowing and via the intranet. This meets the requirements of EU Directive 2019/1937 on the protection of persons who report breaches of Union law.

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 Finance is responsible for this process.

Project management as an operational mainstay

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

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

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

Evaluation of risk management

As part of the audit of the financial statements, in March 2023, BDO Assurance GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft confirmed the functioning and appropriateness of Frequentis' risk management system in accordance with C rule no. 83 of the Austrian Code of Corporate Governance.

Overview of risks

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

Risk relating to the COVID-19 (coronavirus) pandemic or other pandemics

The ongoing development of the COVID-19 pandemic or other pandemics could continue to have a negative impact on economic development in the markets in which Frequentis operates and adversely affect the company's business performance. Among other things, as has been seen in connection with the spread of coronavirus, restrictions on freedom to travel, immigration bans, quarantine requirements, reductions in flight schedules and the associated reduction in the number of flights, and restrictions on the production of goods and services could have a detrimental effect on the development of the markets served by Frequentis.

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

Risks relating to the (macro)economic and political environment

Dependence on political and economic conditions.

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

Legitimate/illegitimate utilisation or unavailability of bank guarantees.

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

Exercise of political influence and protectionism.

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

Risks relating to Frequentis' industry and business

Unpredictabilities, which are characteristic of the tender project business, and 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. The larger a project is, the more significant the impact. The order intake, operational performance, and earnings of the Frequentis Group are typically subject to considerable seasonal fluctuations. Usually, the Group generates most of its order intake, earnings, and operating performance in the fourth quarter of any given financial year and its financial results in the first half of a business year are usually negative. Moreover, in most cases, payment depends on the achievement of milestones and the successful finalisation of such projects.

Fluctuations in earnings due to the impact of major projects.

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

Impact of climate change.

Climate change and the associated warming will result in a number of changes. The global increase in temperatures and extreme weather events such as storms, exceptionally heavy rainfall, including floods, as well as droughts and heatwaves are adversely affecting many people's livelihoods. Coastal areas are exposed to an additional risk from rising sea levels. Many cities in south and south-east Asia and Australia are located directly on the coast. Frequentis has some companies in these regions.

Frequentis could be indirectly affected by climate change – on the procurement market as a result of supply chain delays and disruption and on the sales side by problems due to increasing social and civil conflicts. As a supplier of communication and information systems for control centres in the safety-critical sector, Frequentis' business model is not currently affected by climate change.

Cyberattacks.

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

Changes in technological standards.

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

Progressive customer concentration.

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

Cost overruns.

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

Loss of established customers.

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

Defending market positions against competition.

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

Long-term commitments.

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

Non-performance of payment obligations by customers.

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

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

Growth through acquisitions.

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

Further risks in this area:

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

Regulatory, legal, and tax risks

Legal risks relating to public tender contracts.

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

- Competition in tender processes is normally very intensive;

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

Statutory provisions that define a proportion of domestic content.

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

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

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

Faulty performance by subcontractors.

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

Further risks in this area:

- Damage to customers' assets during on-site work.
- Business activities could be adversely affected by changes in the legal and political framework or the application or interpretation of laws, especially as regards regulatory, commercial, financial, and tax law.
- Failure to successfully protect technology and proprietary know-how or to defend intellectual property.
- Access to bank deposits or other financial assets as a result of legal regulations or the illiquidity of banks.
- Compliance-related risks.

Internal control system (ICS) for the accounting process

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

Structure of accounting

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

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

Consolidation

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

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

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

Controls

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

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

Information pursuant to Section 243a (1) UGB

1. The share capital of Frequentis AG was EUR 13,280,000.00 as at 31 December 2022 and was divided into 13,279,999 no-par-value bearer shares, all of which are equal in all respects, and one registered share with restricted transferability ("share no. 1"). The holder of share no. 1, Johannes Bardach, is authorised by article 5.1.2 of the articles of association to appoint one third of the members of the Supervisory Board (i.e. one third of the maximum number of shareholder representatives set out in article 5.1.1 of the articles of association).

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

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

3. As at 31 December 2022, Frequentis Group Holding GmbH had a direct stake of over 50.0% in Frequentis AG and was thus the direct majority shareholder of Frequentis AG. B&C Holding Österreich GmbH held a stake of over 10.0% in Frequentis AG as at 31 December 2022.

4. As at 31 December 2022, share no. 1 was held by Johannes Bardach. This share has the rights set out in subsection 1 above.

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

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

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

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

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

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

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

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

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

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

7. Under the resolution of the Annual General Meeting of 8 April 2019, the Executive Board is authorised, subject to the approval of the Supervisory Board, to increase the company's share capital up to 7 April 2024 by up to EUR 4,720,000 (four million seven hundred and twenty thousand) by issuing up to 4,720,000 (four million seven hundred and twenty thousand) new bearer shares in return for cash or contributions in kind, in one or more tranches, or through a direct subscription offer following acceptance by one or more banks in accordance with Section 153 (6) of the Austrian Companies Act (AktG). The Executive Board is authorised, subject to the approval of the Supervisory Board, to fully or partially exclude shareholders' subscription rights and, subject to the approval of the Supervisory Board, to define further details of the issue conditions (especially the issue price, type of contribution in kind, rights of the shares, exclusion of subscription rights, etc.) (authorised capital). The Supervisory Board is authorised to adopt amendments to the articles of association resulting from the issuance of shares out of the authorised capital.

The Executive Board was authorised by the Annual General Meeting of 2 June 2022, pursuant to Section 65 (1) No. 4 and No. 8 AktG, to purchase, via the stock exchange or off-market, bearer shares in the company in an amount of up to 10% of the company's share capital during a period of 30 months from the date of the resolution by the General Meeting, whereby the minimum consideration per share may not be more than 20% below and the maximum consideration per share may not be more than 10% above the average closing price on the stock exchange over the preceding ten trading days. Trading in own shares is excluded from the purpose of purchase. The authorisation may be exercised in full or in part or in several tranches and for one or more purposes by the company, by a subsidiary (Section 189a No. 7 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.

No shares in the company were purchased in 2022.

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

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

Outlook

The goal of increasing revenues and order intake was achieved in 2022. Revenues rose 15.7% to EUR 386.0 million. Order intake increased 21.5% to EUR 404.8 million and therefore topped the EUR 400 million threshold for the first time. EBIT was EUR 25.0 million and the EBIT margin was 6.5%, which was within the target range of 6-8%.

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

Acquisitions

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

In September 2022, Frequentis acquired a 25% interest in the Finnish software producer Aviamaps Oy. This company's software enables users of its platform to book drone flights directly in the internet by clicking on a map (real-time aviation maps platform). This platform is a user-friendly flight planning and airspace management tool. In 2023, Aviamaps' software will be integrated into the Frequentis solution for automatic approval of drone flights in Austria. Frequentis has worked with this company on drone research projects in the past.

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

Long-term vision

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

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

Forecast for 2023

Although the COVID-19 pandemic has now been overcome, the uncertainties have not decreased in 2023:

- the war in Ukraine is entering its second year,
- inflation is far from the customary average of less than 2% (in the euro zone) since the turn of the millennium,
- geopolitical tensions have become part of normal life again,
- the major economic areas such as the USA and the euro zone will probably achieve growth of just 1.4% and 0.7%, respectively, in 2023 (IMF forecast).

Although the tensions in south-east Asia are lower, even the outbreak of limited conflicts could rapidly cause disruption on the global IT hardware market. In the project business, Frequentis has always had to address extensive challenges and dynamic changes in external influences and adapts constantly to the relevant conditions. The wide range of uncertainties and the resulting interdependencies make that more difficult at present.

It is not possible to make a reliable estimate of the exact effect on costs, e.g., travel expenses, higher salaries, delays in passing on inflation-driven price rises to customers, and potential supply chain bottlenecks and delivery delays.

In 2023, expenses for company-funded research & development will be higher than in 2022. Capital expenditure (capex) will be around EUR 8 million.

Depending on the aspects outlined above, Frequentis has the following targets for 2023 compared with 2022:

- Increase revenues
- Increase order intake
- EBIT margin of around 6-8%.

Vienna, 13 March 2023

Consolidated income statement

	Note	2022 EUR thousand	2021 EUR thousand
Revenues	(3) (4)	385,970	333,526
Change in inventories of finished goods and work in progress	(3)	22	-202
Own work capitalised	(3) (5)	2,574	92
Other operating income	(3) (6)	10,514	9,451
Profit from business combinations		0	1,951
Total income (operating performance)		399,080	344,818
Cost of materials and purchased services	(7)	-99,250	-75,696
Personnel expenses	(8)	-203,872	-182,137
Other operating expenses	(9)	-50,326	-40,479
Earnings before interest, taxes, depreciation, amortisation, and impairment losses (EBITDA)		45,632	46,506
Depreciation of property, plant and equipment and amortisation of intangible assets	(10)	-17,535	-15,808
Impairment losses	(3) (17) (18)	-3,106	-1,730
Earnings before interest and taxes (EBIT)	(3)	24,991	28,968
Financial income	(11)	209	79
Financial expenses	(12)	-738	-607
Net change in impairment losses on financial assets	(13)	0	-857
Earnings from investments accounted for at equity	(19)	275	342
Profit/loss before tax		24,737	27,925
Income taxes	(14)	-5,859	-7,158
Profit/loss for the period		18,878	20,767
Profit/loss attributable to:			
Equity holders of the company		18,723	19,970
Non-controlling interests	(29)	155	797
		18,878	20,767
Basic earnings per share	(15)	1.41	1.50
Diluted earnings per share	(15)	1.41	1.50

Consolidated statement of comprehensive income

	Note	2022 EUR thousand	2021 EUR thousand
Profit/loss for the period		18,878	20,767
Items that may be reclassified to the income statement in subsequent periods			
Foreign currency translation	(27)	284	1,117
Measurement of cash flow hedges	(27) (35)	297	-298
Income taxes relating to cash flow hedges	(27)	-76	74
Items that may not be reclassified to the income statement			
Remeasurement of post-employment benefits	(27) (30)	4,024	-169
Income taxes relating to the remeasurement of post-employment benefits	(27)	-1,176	23
Other comprehensive income, net of tax		3,353	747
Total comprehensive income		22,232	21,515
Total comprehensive income attributable to:			
Equity holders of the company		21,963	20,755
Non-controlling interests		269	760
		22,232	21,515

Consolidated statement of financial position

ASSETS	Note	31 Dec. 2022 EUR thousand	31 Dec. 2021 EUR thousand
Non-current assets			
Property, plant and equipment	(16)	53,298	47,717
Intangible assets	(17)	14,501	17,717
Goodwill	(18)	5,834	3,433
Investments accounted for at equity	(19)	2,097	1,656
Advance payments for non-current assets	(19)	35	0
Other non-current financial assets		885	241
Deferred tax assets	(14)	3,785	1,849
		80,435	72,613
Current assets			
Inventories	(21)	21,726	17,077
Trade accounts receivable	(22)	76,990	69,435
Contract assets	(23)	50,475	38,353
Contract costs	(24)	4,024	3,712
Other current financial assets	(25)	2,759	672
Other current non-financial assets	(25)	11,360	7,389
Income tax receivables		1,126	448
Time deposits	(20)	10,000	2,199
Cash and cash equivalents	(20)	81,380	103,798
		259,840	243,083
Total assets		340,275	315,696

LIABILITIES AND EQUITY	Note	31 Dec. 2022 EUR thousand	31 Dec. 2021 EUR thousand
Shareholders' equity			
Share capital	(26)	13,280	13,280
Capital reserves	(27)	21,138	21,138
Retained earnings	(27) (28)	110,494	92,274
Treasury shares		-221	-384
Adjustments for foreign currency translation		364	106
Equity attributable to equity holders of the parent company		145,055	126,414
Non-controlling interests	(29)	2,224	3,436
Total shareholders' equity		147,279	129,850
Non-current liabilities			
Liabilities to banks and other financial liabilities		218	3,820
Provisions	(30)	17,263	19,992
Lease liabilities	(36)	30,763	29,785
Other non-current financial liabilities	(32)	4,239	858
Deferred tax liabilities	(14)	9,441	6,166
		61,924	60,621
Current liabilities			
Liabilities to banks and other financial liabilities		199	1,085
Contract liabilities	(31)	68,035	65,388
Trade accounts payable		16,258	13,422
Provisions	(33)	14,914	17,415
Lease liabilities	(36)	8,422	7,794
Other current financial liabilities	(32)	6,087	4,996
Other current non-financial liabilities	(32)	10,261	10,133
Current tax liabilities		6,896	4,992
		131,072	125,225
Total shareholders' equity and liabilities		340,275	315,696

Consolidated cash flow statement

	Note	2022 EUR thousand	2021 EUR thousand
Profit/loss before tax		24,737	27,925
Net interest income/expense		529	529
Foreign currency translation		126	-91
Profit/loss from the disposal of non-current assets		12	13
Depreciation of property, plant and equipment and amortisation of intangible assets	(13) (16) (17)	20,641	18,401
Earnings from investments accounted for at equity	(19)	-275	-342
Change in provisions	(30) (33)	-2,151	3,860
Profit from business combinations		0	-1,951
Income from changes in variable purchase price payments	(32)	-402	-850
Other non-cash income/expenses		389	363
Net cash flow from operations		43,606	47,857
Change in inventories	(21)	-4,448	-2,902
Change in trade accounts receivable	(22)	-1,578	-6,139
Change in contract assets	(23)	-12,122	8,565
Change in contract costs	(24)	-312	-550
Change in other receivables	(25)	-6,298	3,402
Change in trade accounts payable		2,868	1,340
Change in contract liabilities	(31)	-1,910	-1,388
Change in other liabilities	(32)	239	2,482
Change in net working capital		-23,561	4,810
Interest paid		-705	-608
Interest received		169	83
Dividends received		114	195
Income taxes paid/refunded	(14)	-5,400	-3,584
Net cash flow from operating activities		14,223	48,753

	Note	2022 EUR thousand	2021 EUR thousand
Cash inflows from the sale of intangible assets		1	7
Cash inflows from the sale of property, plant and equipment		20	4
Cash inflows from time deposits		2,199	0
Cash outflows for the purchase of intangible assets		-946	-2,456
Cash outflows for the purchase of property, plant and equipment		-9,160	-3,883
Cash outflows for time deposits		-10,000	-2,006
Cash outflows for the purchase of investments accounted for at equity		-160	0
Cash outflows for the acquisition of subsidiaries, less acquired cash and cash equivalents		-2,097	-16,279
Net cash flow from investing activities		-20,143	-24,613
Dividends paid to owners	(26)	-2,654	-1,990
Dividends paid to non-controlling interests	(29)	-953	-603
Purchase of treasury shares	(26)	0	-384
Cash inflows from loans and other financing		398	0
Cash outflows for repayment of loans and other financing		-4,599	-1,400
Cash outflows for payments of principal on lease liabilities	(36)	-8,686	-8,228
Net cash flow from financing activities		-16,494	-12,605
Change in cash and cash equivalents:			
Net cash flow from operating activities		14,223	48,753
Net cash flow from investing activities		-20,143	-24,613
Net cash flow from financing activities		-16,494	-12,605
Net change in cash and cash equivalents		-22,413	11,535
Cash and cash equivalents at start of period		103,798	91,265
Cash-flow related change in cash and cash equivalents		-22,413	11,535
Foreign currency translation		-5	992
Other loss allowances		0	6
Cash and cash equivalents at end of period		81,380	103,798

For further information on the consolidated cash flow statement, see Note 34.

Consolidated statement of changes in shareholders' equity

in EUR thousand	Share capital	Capital reserves	IAS 19 reserve	Option reserve	Cash flow hedge reserve	Retained earnings	Treasury shares	Foreign currency translation	Equity attributable to equity holders of the parent company	Non-controlling interests	Total shareholders' equity
Note	[26]	[27]	[30]	[28]	[35]	[27]	[26]			[29]	
As at 1 January 2022	13,280	21,138	-6,284	602	-346	98,302	-384	106	126,414	3,436	129,850
Profit/loss for the period						18,723			18,723	155	18,878
Other comprehensive income			2,761		221			257	3,239	114	3,253
Total comprehensive income			2,761		221	18,723		257	21,962	269	22,231
Dividends						-2,654			-2,654	-953	-3,607
Change in treasury shares						-44	163		119		119
Acquisition of non-controlling interests										2,653	2,653
Changes in connection with put options						-832			-832	-3,181	-4,013
Other changes				137		-92			45		45
As at 31 December 2022	13,280	21,138	-3,523	739	-125	113,403	-221	364	145,055	2,224	147,279

in EUR thousand	Share capital	Capital reserves	IAS 19 reserve	Option reserve	Cash flow hedge reserve	Retained earnings	Treasury shares	Foreign currency translation	Equity attributable to equity holders of the parent company	Non-controlling interests	Total shareholders' equity
Note	[26]	[27]	[30]	[28]	[35]	[27]	[26]			[29]	
As at 1 January 2021	13,280	21,138	-6,133	232	-123	80,699		-1,053	108,041	3,382	111,423
Profit/loss for the period						19,970			19,970	797	20,767
Other comprehensive income			-151		-223			1,159	785	-37	747
Total comprehensive income			-151		-223	19,970		1,159	20,754	760	21,515
Dividends						-1,990			-1,990	-603	-2,593
Purchase of treasury shares							-384		-384		-384
Changes in connection with put options						-377			-377	-103	-480
Other changes				370					370		370
As at 31 December 2021	13,280	21,138	-6,284	602	-346	98,302	-384	106	126,414	3,436	129,850

Notes to the consolidated financial statements

1. General information

Reporting

The consolidated financial statements of Frequentis AG for the 2022 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 2022 have been applied.

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

Information on the company

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

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

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

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

The reporting date is 31 December 2022.

The financial year is 1 January to 31 December 2022.

In the reporting period, the Executive Board comprised:

- Norbert Haslacher, Chairman
- Hermann Mattanovich
- Peter Skerlan

In the reporting period, the Supervisory Board comprised:

- Johannes Bardach, Chairman
- Dr. Karl Michael Millauer, Deputy Chairman
- Sylvia Bardach, member
- Reinhold Daxecker, member
- Dr. Boris Nemsic, member
- Petra Preining, member
- Stefan Hackethal, member pursuant to Section 110 ArbVG (from 1 September 2022)
- Siegfried Meisel, member pursuant to Section 110 ArbVG (until 31 August 2022)
- Gabriele Schedl, member pursuant to Section 110 ArbVG
- Reinhard Steidl, member pursuant to Section 110 ArbVG

The consolidated financial statements were approved by the Executive Board on the date of signature, subject to approval by the Supervisory Board at its meeting on 29 March 2023.

Consolidated group

Besides Frequentis AG, which is the parent company of the consolidated group, the consolidated financial statements of Frequentis AG include 6 (2021: 6) domestic subsidiaries and 28 (2021: 26) 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.

7 (2021: 3) foreign companies and 2 (2021: 2) domestic companies are included in the consolidated financial statements by applying the equity method. The reporting date for all companies included in the financial statements is 31 December.

a) Fully consolidated Austrian subsidiaries

- BlueCall Systems GmbH, Vienna (100%) (renamed Frequentis Invest4Tech GmbH on 20 February 2023)
- CNS-Solutions & Support GmbH, Vienna (100%)
- Frequentis DFS Aerosense GmbH, Vienna (70%)
- PDTS GmbH, Vienna (100%)
- skyzr GmbH, Vienna (100%)
- team Technology Management GmbH, Vienna (51%)

b) Fully consolidated subsidiaries in Europe

- ATRiCS Advanced Traffic Solutions GmbH, Freiburg (51%)
- ELARA Leitstellentechnik GmbH, Aachen (51%)
- Frequentis Comsoft GmbH, Karlsruhe (100%)
- Frequentis Czech Republic s.r.o., Prague (100%)
- Frequentis Deutschland GmbH, Langen (100%)
- Frequentis France SARL, Toulouse (100%)
- Frequentis Norway AS, Oslo (100%)
- Frequentis Orthogon GmbH, Bremen (100%)
- Frequentis Romania S.R.L., Cluj-Napoca (100%)
- Frequentis Solutions & Services s.r.o., Bratislava (100%)
- Frequentis UK Ltd., Twickenham (100%)
- Regola S.r.l., Turin (51%)

- Secure Service Provision GmbH, Leipzig (80%)
- Systems Interface Ltd., Bordon (51%)
- TEAM Technology Management GmbH, Gräfelfing (51%; effective shareholding 26%)

c) Fully consolidated subsidiaries in the Americas

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

d) Fully consolidated subsidiaries in Asia

- Frequentis Middle East Limited, Abu Dhabi (100%)
- Frequentis (Shanghai) Co. Ltd., Shanghai (100%)
- Frequentis Singapore Pte. Ltd., Singapore (100%)

e) Fully consolidated subsidiaries in Australia/Pacific

- C4i Pty Ltd, Melbourne (100%)
- Frequentis Australia Holding Pty Ltd, Hendra (100%)
- Frequentis Australasia Pty. Ltd, Hendra (100%)

f) Companies accounted for using the equity method

- AIRlabs Austria GmbH, Graz (18%)
- AIRNAV Technology Services Inc., Iloilo (40%**)
- AMANTEA Ltd., Zabbar (50%, effective shareholding 25.5%)
- Aviamaps Oy, Valkeakoski (25%)
- GroupEAD Europe S.L., Madrid (28%)
- Lift S.r.l., Cagliari (24%, effective shareholding 12.24%)
- Mission Embedded GmbH, Vienna (20%)
- Nowtech S.r.l., Sassari (20%, effective shareholding 10.2%)
- Nemergent Solutions S.L., Bilbao (15%)

*] As at 1 January 2023, Frequentis Canada ATM Ltd. was merged into Frequentis Canada Ltd.

**] As at 20 February 2023, the interest in AIRNAV Technology Services Inc. was increased to 65%.

All information on the consolidated group relates to the circumstances as at 31 December 2022.

Changes to the consolidated group

On January 5, 2022, Frequentis acquired a 51% interest in **Regola S.r.l.** (registered office Turin, Italy) and its associated companies AMANTEA Ltd., Lift S.r.l., and Nowtech S.r.l., which are accounted for using the equity method. Regola's innovative software solutions complement Frequentis' public safety product portfolio and therefore support its long-term growth strategy in this business domain.

Frequentis and Regola supply integrated solutions to improve the response of emergency services. Regola's command and control (CAD) solutions complement Frequentis' portfolio in the area of public safety and adjacent markets. Its main product is the UNIQUE CAD product family, accompanied by products offered on a software-as-a-service basis. The aim is to step up international sales and marketing. Regola has been allocated to the Public Safety & Transport (PST) segment.

The purchase agreement was signed on 22 October 2021 and the transaction was closed on 5 January 2022.

The contractually agreed purchase price comprised the following components:

	Fair value as at 5 Jan. 2022 100% EUR thousand	Fair value as at 5 Jan. 2022 51% EUR thousand
Basic purchase price	4,020	2,050
Earn-out payments	980	500
	5,000	2,550
Regola NFP (net financial position)	-130	-66
Target Regola NFP	0	0
	-130	-66
Regola working capital	1,104	563
Target Regola working capital	560	286
	544	277
Total consideration	5,414	2,761

Based on the local annual financial statements as at 31 December 2021, Regola achieved the EBIT target for 2021 and the earn-out payment of EUR 250 thousand was paid in 2022. Based on the annual financial statements for 2022, the EBIT target for 2022 was also achieved. This will result in a further earn-out payment of EUR 250 thousand.

In accordance with the purchase agreement, EUR 2,050 thousand was paid at the closing date and EUR 461 thousand (earn-out-payment of EUR 250 thousand and EUR 211 thousand due to NFP and working capital adjustments) was paid as at 1 April 2022 following final approval of the local financial statements for 2021.

In addition, the purchase agreement includes an option for non-controlling shareholders in Regola to transfer their interests to Frequentis. If this option is exercised, Frequentis has an irrevocable obligation to acquire the interests in this business. The put option can be exercised at the earliest on 30 June 2027. It is based on the enterprise value, calculated as a multiples-based valuation less net financial debt. The multiples-based valuation is based on EBIT as at 31 December 2027. The liability from this put option in the amount of EUR 2,375 thousand, which has already been recognised as other non-current financial liabilities, reduced the non-controlling interests to EUR 278 thousand as at the acquisition date. The put option was remeasured at EUR 3,262 thousand, as at 31 December 2022 and is recognised in other non-current financial liabilities.

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

	Fair value as at 5 Jan. 2022 100% EUR thousand	Fair value as at 5 Jan. 2022 51% EUR thousand
Intangible assets	3,088	1,575
Property, plant, and equipment	447	228
Investments accounted for at equity	152	77
Other non-current receivables	15	8
Advance payments made	201	103
Trade accounts receivable	5,977	3,048
Other assets	349	178
Cash and cash equivalents	414	211
Deferred tax liabilities	-771	-393
Non-current lease liabilities	-175	-89
Provisions for severance payments	-816	-416
Contract liabilities	-4,557	-2,324
Trade accounts payable	-769	-392
Current lease liabilities	-65	-33
Other liabilities	-280	-143
Current tax liabilities	-83	-42
Other current provisions	-125	-64
Net assets	3,002	1,532
Consideration paid	5,414	2,761
Goodwill	2,412	1,230

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

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

Since the acquisition, Regola has contributed revenues of EUR 10,005 thousand and EBIT of EUR 953 thousand to the consolidated figures of the Frequentis Group.

Other changes to the consolidated group

Frequentis USA Holdings, Inc. (based in Maryland, USA) was established in February 2022. This company is wholly owned by Frequentis AG. The Group companies in the USA are assigned to Frequentis USA Holdings, Inc.

Further, 25% of the shares in Aviamaps Oy were acquired in the reporting period. The interest was acquired through BlueCall Systems GmbH (a wholly owned subsidiary of Frequentis AG). Further details are given in Note 19. Investments accounted for at equity (associated companies).

2. Accounting policies

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

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

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

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

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

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

Currency		Closing rate 31 Dec. 2022	Closing rate 31 Dec. 2021	Average rate 31 Dec. 2022	Average rate 31 Dec. 2021
AED	Emirati dirham	3.92	4.16	3.86	4.34
AUD	Australian dollar	1.57	1.56	1.52	1.58
BRL	Brazilian real	5.64	6.31	5.41	6.38
CAD	Canadian dollar	1.44	1.44	1.37	1.48
CNY	Chinese renminbi yuan	7.36	7.19	7.07	7.61
CZK	Czech koruna	24.12	24.86	24.54	25.65
GBP	British pound	0.89	0.84	0.85	0.86
NOK	Norwegian krone	10.51	9.99	10.11	10.16
RON	Romanian leu	4.95	4.95	4.93	4.93
SGD	Singapore dollar	1.43	1.53	1.45	1.59
USD	US dollar	1.07	1.13	1.05	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 2022 and were effective at that date:

- Property, Plant and Equipment – Proceeds before Intended Use (IAS 16)
- Onerous Contracts – Cost of Fulfilling a Contract (IAS 37)
- Reference to the Conceptual Framework (IFRS 3)

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

In addition, some of the following new and amended standards had been endorsed by the EU, but were not mandatory for the 2022 financial year. The Frequentis Group did not adopt these standards early on a voluntary basis, even if they had already been endorsed by the EU.

	Newly amended IFRSs	Endorsement by the EU	Effective date	Significant effects
IFRS 17	Insurance Contracts	19 November 2021	2023	None
IAS 1	Classification of Liabilities as Current or Non-Current	Open	2024	None
IAS 1	Disclosure of Accounting Policies	2 March 2022	2023	None
IAS 8	Accounting Policies; Changes in Accounting Estimates and Errors	2 March 2022	2023	None
IAS 12	Deferred Tax related to Assets and Liabilities arising from a Single Transaction	11 August 2022	2023	None
IFRS 16	Lease Liability in a Sale and Leaseback	Open	2024	None

Intangible assets, property, plant and equipment

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

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

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

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

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

Goodwill

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

Impairment losses

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

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

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

If an impairment test identifies the need to recognise an impairment loss, the corresponding expense is recognised in the line item impairment loss on goodwill.

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

Investments accounted for at equity (associated companies)

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

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

Leases

Frequentis as lessee

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

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

In accordance with IFRS 16, the lease term is essentially the non-cancellable period of the lease. In addition, options to extend or terminate the lease are taken into account.

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

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

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

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

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

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

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

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

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

In the event of remeasurement of the lease liability, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recognised in profit or loss if the carrying amount of the right-of-use asset has been reduced (taking into consideration the reduction in the lease liability) or if it has been reduced to zero.

The Frequentis Group has decided not to recognise right-of-use assets and lease liabilities for leases where the underlying leased assets are of low value and for short-term leases. In addition, the option to exclude intangible assets from the scope of IFRS 16 is used. The Frequentis Group recognises the lease payments relating to such leases as expense on a straight-line basis over the term of the lease.

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

Frequentis as lessor

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

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

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

Financial instruments

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

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

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

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

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

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

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

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

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

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

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

In the Frequentis Group, no instruments were allocated to this category in either 2022 or 2021.

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

All financial assets that are not measured at amortised cost or at FVOCI are measured at FVTPL. This comprises all derivative financial assets that are not designated as a cash flow hedge in a hedging relationship. In the 2022 and 2021 financial years, the Group did not hold any financial assets designated at FVTPL.

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

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

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

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

Derivatives are measured at fair value, both at initial recognition and subsequently. Any changes in the fair value are recognised in profit or loss, unless the derivatives are designated in a hedging relationship classified as a cash flow hedge.

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

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

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

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

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

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

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

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

Inventories

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

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

IFRS 15 Revenue from Contracts with Customers

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

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

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

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

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

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

Employee benefit obligations

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

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

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

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

Share-based payment

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

Provisions

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

Research and development costs

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

Development projects comprise expenditures that serve to apply theoretical knowledge for technical and commercial use. If the criteria for recognition as an intangible asset pursuant to IAS 38.21 are met, the directly allocable development costs are recognised as an intangible asset; otherwise, the development costs are expensed as incurred. In the reporting period, as well as in the previous year, the technical feasibility of hardware and software development projects either could not be assessed or the research and development phases could not be clearly distinguished. Moreover, confirmation of technological feasibility and commercial usability is generally only obtained shortly before projects are ready for the commercial market. Therefore, the criteria for recognition as an asset were not met in either 2022 or 2021.

Grants and subsidies

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

Income taxes

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

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

The applicable income tax rates for foreign Group companies were between 16% and 32% in the reporting period (2021: between 16% and 33%).

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

Deferred taxes are not recognised for:

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

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

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

Significant estimates and use of judgement

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

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

- a) The Frequentis Group holds less than 20% of the shares and voting rights of two associated companies, but classifies its influence as significant as it is represented on the management of these companies (see Note 19. Investments accounted for at equity [associated companies]).
- b) When assessing the term of leases, especially real estate leases, the Frequentis Group takes into account any extension or termination options where it is reasonably certain that they will be exercised.

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

- a) Useful life of non-current assets: Property, plant and equipment and purchased intangible assets are recognised at the acquisition or manufacturing cost and depreciated/amortised over their useful life using the straight-line method. Factors such as wear and tear, obsolescence, technical standards, and contract duration are taken into account when determining the useful life.

- b) Estimated impairment of goodwill: The Frequentis Group tests goodwill for impairment annually. The recoverable amount of cash-generating units is determined by calculating their value in use. This is based on corresponding planning calculations, which are naturally based on estimates and assumptions. See Note 18 for information on the assumptions and sensitivity analyses used in the goodwill impairment test.
- c) Revenue is recognised over time based on the progress towards satisfaction of the performance obligation using the input-based method (cost-to-cost method). Accounting for contracts realised over time is based on estimated contract costs, the achievable contract revenue, and the risks associated with the contract. These estimates are regularly reviewed and revised. Although the estimates are made using all information available at the reporting date, changes may occur. These changes may affect both the revenue recognised and the carrying amounts of contract assets.

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

- d) The recognition of provisions for onerous contracts is subject to estimates of the expected contract costs and contract results. These estimates are based on historical experience and current information as at the reporting date.
- e) Post-employment benefit obligations are measured using various parameters such as the discount rate and salary increases. Changes in these parameters may result in a change in the obligation recognised. The sensitivity of post-employment benefit obligations is outlined in Note 30. Non-current provisions.
- f) The recognition of deferred tax assets requires that sufficient taxable income will be generated in the future against which the tax credits and loss carryforwards can be utilised. The assessment as to whether deferred taxes can be recognised is subject to estimates of various factors. Tax matters are subject to uncertainties regarding their assessment by the tax authorities, therefore it cannot be precluded that in individual cases they may reach a different conclusion than the Frequentis Group.
- g) In connection with the acquisition of the shares in ATRiCS Advanced Traffic Solutions GmbH, in addition to the basic purchase price, an earn-out payment was agreed. This is dependent on the achievement of certain earnings targets, the level of working capital on 31 December 2024, and the net cash/debt position as at 31 December 2024 (all parameters based on German accounting standards) and which are accounted for as additions to or deductions from the agreed target value. To measure the earn-out liability as at 31 December 2022, assumptions were made on the development of these items. For further information, see Note 32. Other liabilities. If the actual development differs significantly from the assumptions made, this may impact earnings because the liability is subsequently measured at fair value through profit or loss.

- h) The liabilities for the put options relating to non-controlling interests correspond to the enterprise value less net financial debt of ELARA Leitstellentechnik GmbH and Regola S.r.l. The enterprise value of both ELARA Leitstellentechnik GmbH and Regola S.r.l. is determined using a multiples-based method. In the case of ELARA Leitstellentechnik GmbH, it is based on the average revenues and EBIT of the last two annual financial statements immediately preceding exercise of the option, while for Regola S.r.l., it is based on EBIT in the twelve months immediately preceding exercise of the option. To measure the liabilities, assumptions were made about the development of these items. For further information, see Note 32. Other liabilities. Significant changes in the underlying assumptions do not impact earnings because the changes are recognised in equity.
- i) Impairment loss on the deposits at Commercialbank Mattersburg im Burgenland AG: Since 31 December 2020, all claims against Commercialbank Mattersburg have been fully impaired because, based on the information on the insolvency proceedings, it can be assumed that the recovery quota of the insolvency estate will not be economically relevant. Due to the complex nature of the lawsuits filed by Frequentis in 2020, they are not currently at a stage that justifies recognition of a claim in the financial statements. Depending on the further course of these proceedings, positive effects on earnings may arise if Frequentis is awarded a quota of the insolvency estate or if its claims for compensation in pending proceedings are successful.
- j) Climate change and the associated warming will result in a number of changes. The global increase in temperatures and extreme weather events such as storms, exceptionally heavy rainfall, including floods, droughts, and heatwaves are adversely affecting many people's livelihoods. Coastal areas are exposed to an additional risk from rising sea levels. Many cities in south and south-east Asia and Australia are located directly on the coast. Frequentis has companies in these regions.

Frequentis could be indirectly affected by climate change – on the procurement market as a result of supply chain delays and disruption and on the sales side by problems due to increasing social and civil conflicts. As a supplier of communication and information systems for control centres in the safety-critical sector, Frequentis' business model is not currently affected by the impact of climate change but the mid-term effects cannot yet be estimated. Climate change did not have any significant effect on the consolidated financial statements for 2022.

- k) The war in Ukraine indirectly resulted in higher prices, especially for electricity, gas, and fuels. Consequently, prices of other everyday products increased, so inflation rose sharply almost everywhere in the world and was well above the average for recent years. This resulted in the need to adjust prices for existing and new customer projects. The annual inflation-adjusted pay rises for employees under collective agreements and other salary agreements are reflected directly in the Frequentis Group's personnel expenses in 2022 and 2023. The expected future impact of the cost increases was taken into consideration in the measurement of projects and non-current personnel provisions and recognised in contract assets, contract liabilities, and non-current provisions.

Frequentis was affected to some extent by supply chain bottlenecks. Moreover, in some cases it was affected by sharp increases in procurement prices and delivery delays. The increase in inventories was mainly due to increased stocking of components to ensure an adequate safety net to meet long-standing delivery and maintenance obligations despite the withdrawal of products by producers and supply bottlenecks.

The war in Ukraine did not have a relevant impact on Frequentis' revenues because the total revenues generated with Ukraine, Russia, and Belarus were less than EUR 100 thousand in 2022 and these receivables were either fully impaired or had been settled before the start of the war.

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 (coastguards, port authorities, and organisations that monitor shipping on inland waterways). The Frequentis Group's PST segment delivers control centre solutions for police, ambulance, and fire service organisations, search and rescue, coastal surveillance, operations communications, and incident and crisis management. The acquisition made in 2022, which has been allocated to the PST segment, generated revenues of EUR 10,005 thousand and EBIT of EUR 953 thousand from the acquisition date.

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

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

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 2022, nor in 2021, did the Frequentis Group generate more than 10% of its total revenues with any single customer.

In terms of revenue categories, 41% (2021: 44%) of the Group's revenues were generated principally with new products for established customers and existing products sold to new customers, 56% (2021: 53%) comprised IBB (installed base business, i.e. follow-on business for installed systems and solutions), and 3% (2021: 3%) came from other sources (mainly consulting). Approximately half of the installed base business comprised maintenance contracts.

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

	2022	2021
Europe	63.3%	69.6%
Asia	18.0%	12.3%
Americas	11.6%	13.7%
Australia/Pacific	6.3%	3.3%
Africa	0.7%	1.1%

Orders on hand as at 31 December 2022 totalled EUR 522,033 thousand (2021: EUR 467,930 thousand). The ATM segment accounted for EUR 329,709 thousand (2021: EUR 297,567 thousand) of this amount and the PST segment for EUR 192,323 thousand (2021: EUR 170,363 thousand).

Regional breakdown of non-current assets

	2022 EUR thousand	2021 EUR thousand
Austria	37,253	38,689
Europe (excluding Austria)	23,730	20,502
Australia/Pacific	7,916	6,977
Americas	6,391	3,873
Asia	440	481
	75,730	70,522

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

4. Revenues

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

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

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

Revenues are recognised using the input-based method (cost-to-cost method). Contract assets are only recognised if they exceed the associated advance payments from customers. In the reporting period, contract assets increased by EUR 12,122 thousand (2021: decreased by EUR 67 thousand). The increase in contract assets is the net result of a large number of newly commenced and invoiced projects.

In the case of maintenance contracts, the customer generally receives the benefits as the performance obligation is satisfied. Revenue is recognised over time. Exceptions from this rule are certain services (e.g. consulting and repairs) with a short lead time or performance period, and orders for spare parts or small parts where the revenue is recognised at a point in time. The revenues from these orders amounted to EUR 18,377 thousand in the reporting period (2021: EUR 14,612 thousand).

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

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

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

	2022	2021
	EUR thousand	EUR thousand
New products and/or new customer business	157,693	145,126
IBB (installed base business)	217,628	177,370
Other revenues	10,649	11,031
	385,970	333,526

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

	2022	2021
	EUR thousand	EUR thousand
Europe	252,747	226,207
Americas	60,691	49,840
Asia	45,034	31,489
Australia/Pacific	19,418	15,142
Africa	6,393	8,295
Small orders (not allocated)	1,687	2,554
	385,970	333,526

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

The transaction price of unsatisfied or only partially satisfied performance obligations was EUR 522.0 million (31 December 2021: EUR 467.9 million) and corresponds to the orders on hand in the Frequentis Group at the reporting date. It is expected that revenue of approximately EUR 275.7 million will be recognised in 2023 and revenue of EUR 246.3 million will be recognised in 2024 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 2022 comprise EUR 2,261 thousand (2021: EUR 0 thousand) for self-produced assets in connection with operating leases (see Note 36 Leases) and EUR 313 thousand (2021: EUR 92 thousand) for self-produced internal demonstration and test systems.

6. Other operating income

	2022	2021
	EUR thousand	EUR thousand
Grants and subsidies for research and development costs	4,238	3,872
Income from research incentives	2,618	1,862
Exchange rate differences	1,339	1,374
Change in the earn-out payment liability	402	850
Changes in the fair value of forward exchange contracts	216	0
Revenue from operating leases	182	26
Gain from the sale of intangible assets, property, plant and equipment	19	3
Miscellaneous other operating income	1,500	1,464
	10,514	9,451

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

The earn-out payment liability in connection with the acquisition of ATRiCS Advanced Traffic Solutions GmbH in 2020 was reduced by EUR 402 thousand in 2022 (2021: EUR 850 thousand). For further information, see Note 32. Other liabilities.

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

7. Cost of materials and purchased services

	2022	2021
	EUR thousand	EUR thousand
Cost of materials	41,338	28,905
Cost of purchased services	57,912	46,791
	99,250	75,696

An increase of EUR 7,778 thousand in the cost of materials and an increase of EUR 1,759 thousand in the cost of purchased services are attributable to the acquisitions made in 2021 and 2022.

8. Personnel expenses

	2022	2021
	EUR thousand	EUR thousand
Salaries	162,237	145,364
Expenses for severance payments	2,215	2,808
Expenses for pensions	2,471	1,676
Social security contributions	31,547	28,520
Other voluntary social welfare expenses	5,402	3,769
	203,872	182,137

The headcount at the end of the financial year was 2,116 (2021: 2,043), measured as full-time equivalents (FTE). The average was 2,081 FTE (2021: 1,937). Calculation of the headcount was altered to FTE in the reporting period. The prior-year figures have been adjusted accordingly.

EUR 8,775 thousand of the increase in personnel expenses is attributable to the acquisitions made in 2021 and 2022. Most of the remainder is due to individual and collectively agreed salary rises, the increase in the accrual for holidays not yet taken, and the increase in the headcount.

9. Other operating expenses

	2022 EUR thousand	2021 EUR thousand
Travel expenses	10,687	5,377
Other consulting expenses	5,775	4,449
External personnel	4,514	3,103
Advertising	3,849	2,131
Licenses (terms of up to 1 year)	2,907	1,395
Exchange rate differences	2,694	1,455
Insurance expenses	2,527	2,327
Legal and consulting expenses	2,526	3,605
Maintenance	2,290	2,212
Energy	2,014	1,172
Transport	1,891	1,232
Operating expenses (buildings)	1,472	1,201
Telephone and communications expenses	1,264	1,102
Vehicles	1,159	916
Staff recruitment	1,072	920
Cleaning	1,015	863
Other taxes and levies	736	755
Short-term leases and leases for low-value assets	677	573
Impairment of receivables and contract assets	313	908
Translation costs	202	244
Changes in the fair value of forward exchange contracts	94	1,955
Losses from the disposal of intangible assets, property, plant and equipment	30	16
Miscellaneous	618	2,568
	50,326	40,479

Since unrestricted travel is now possible, travel expenses were EUR 5,310 thousand higher than in the previous year. However, they were still lower than in 2019 (EUR 11,861 thousand).

EUR 4,091 thousand of the increase in other operating expenses is attributable to the acquisitions made in 2021 and 2022.

The impairment contains EUR 292 thousand (2021: EUR 916 thousand) for receivables and EUR 5 thousand (2021: EUR -8 thousand) for contract assets. The impairment is not presented separately in the income statement as the amount is insignificant.

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

	2022 EUR thousand	2021 EUR thousand
Depreciation of right-of-use assets	9,066	8,231
Depreciation of property, plant and equipment and amortisation of intangible assets	7,632	7,042
Depreciation and amortisation of low-value assets	837	535
	17,535	15,808

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

11. Financial income

	2022 EUR thousand	2021 EUR thousand
Interest and similar income	209	79
	209	79

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

12. Financial expenses

	2022 EUR thousand	2021 EUR thousand
Interest and similar expenses	738	607
	738	607

EUR 412 thousand (2021: EUR 215 thousand) of the interest and similar expenses is attributable to IFRS 16. Interest expenses are recognised using the effective interest method.

13. Net change in impairment losses on financial assets

	2022 EUR thousand	2021 EUR thousand
Impairment loss on the equity instrument Altitude Angel Ltd.	0	-863
Other	0	6
	0	- 857

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

14. Income taxes

	2022 EUR thousand	2021 EUR thousand
Current income taxes	6,396	6,608
Taxes relating to other periods	75	-33
Non-deductible withholding tax	62	67
Change in deferred tax assets/liabilities	-674	516
	5,859	7,158

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

	2022 EUR thousand	2021 EUR thousand
Profit/loss before tax	24,737	27,925
Theoretical tax income/expense based on a tax rate of 25%	6,184	6,981
Differences in tax rates	-171	317
Tax additions	444	379
Tax deductions	-777	-451
Changes in tax rates	-485	-158
Tax-free income from associated companies	-69	-86
Impairment loss on goodwill	0	433
Profit from business combinations	0	-488
Tax losses for which no deferred tax assets were recognised	699	207
Realised tax losses for which no deferred tax assets were recognised	-103	-10
Taxes relating to other periods	75	-33
Non-deductible withholding tax	62	67
Actual tax expense	5,859	7,158
Effective tax rate	23.7%	25.6%

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

The effect from the change in tax rates in 2022 was attributable to the reduction in the corporation tax rate in Austria from 25% to 24% for 2023 and 23% for financial years from 2024. As at 31 December 2022, deferred taxes were calculated using a tax rate of 23% or 24%, depending when the temporary differences are expected to reverse.

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

	Assets 2022 EUR thousand	Liabilities 2022 EUR thousand	Assets 2021 EUR thousand	Liabilities 2021 EUR thousand
Property, plant, and equipment	116	-10,605	13	-9,750
Intangible assets	202	-3,563	97	-4,108
Goodwill	17		55	
Financial assets	173	-4	221	
Inventories	81	-570	55	-477
Contract assets	94	-6,800	209	-4,118
Contract costs		-72		-170
Trade accounts receivable and other assets	93	-3,606	88	-1,633
Provisions	2,276	-897	3,837	-1,807
Trade accounts payable and other liabilities	10,129	-139	10,080	-137
Contract liabilities	4,331	-204	1,881	-3
Deferred taxes on exchange rate differences, debt consolidation	112	-112	96	-95
Tax loss carryforwards	3,293		1,349	
Total	20,916	-26,572	17,981	-22,298
Netting	-17,131	17,131	-16,132	16,132
Deferred taxes	3,785	-9,441	1,849	-6,166

Deferred tax liabilities resulting from temporary differences in connection with investments in subsidiaries are not recognised if the date of reversal of the temporary differences can be controlled by the Frequentis Group and it is probable that the temporary differences will not be reversed in the near future. Such temporary differences for which no deferred tax liabilities are recognised amounted to EUR 3,768 thousand (2021: EUR 3,914 thousand).

As at the reporting date, the Frequentis Group had loss carryforwards totalling EUR 16,379 thousand (2021: EUR 6,869 thousand). Deferred taxes were recognised for loss carryforwards of EUR 12,539 thousand (2021: EUR 4,694 thousand) because it is probable that there will be future taxable income against which the Frequentis Group can offset the deferred tax assets. There is a 20-year time limit on the use of a tax loss carryforward of EUR 1,408 thousand (2021: EUR 1,256 thousand). There is no time limit on use of the other loss carryforwards.

The amount of tax-deductible impairments on equity investments that is spread over seven years under Austrian tax law is EUR 632 thousand (2021: EUR 787 thousand). Deferred tax assets of EUR 147 thousand (2021: EUR 197 thousand) were recognised on this amount.

As at 31 December 2022, no material income tax uncertainties existed.

15. Earnings per share

Basic earnings per share are calculated by dividing the result for the period attributable to equity holders of Frequentis AG by the weighted average number of shares outstanding in the reporting period. In the reporting period, the weighted average number of shares was 13,268,833 (2021: 13,269,358).

Diluted earnings per share are calculated by dividing the result for the period attributable to the equity holders of Frequentis AG by the weighted average number of outstanding shares in the reporting period, adjusted in each case by the dilutive effect of the share-based payment of 51,370 shares. The average weighted number of shares and options was 13,317,764 (2021: 13,307,220).

Notes to the consolidated statement of financial position

16. Property, plant and equipment

in EUR thousand	Land and buildings on leased land	Technical plant and machinery	Technical equipment for operating leases	Other plant, factory and office equipment	Advances and plants under construction	Advances and plants under construction for operating leases	Total
Carrying amount as at 31 December 2020	38,976	904	0	6,498	227	0	46,605
Foreign currency translation difference	314	0	0	41	9	0	364
Reclassification	113	0	0	123	-236	0	0
Additions from business combinations	1,748	68	0	581	0	0	2,397
Addition	5,364	32	0	4,576	383	0	10,355
Disposal	0	0	0	-44	0	0	-44
Depreciation	-7,851	-218	0	-3,891	0	0	-11,960
Carrying amount as at 31 December 2021	38,664	786	0	7,884	383	0	47,717
Cost of acquisition/production	65,526	4,405	0	32,249	383	0	102,563
Accumulated depreciation	-26,862	-3,619	0	-24,365	0	0	-54,846
Carrying amount as at 31 December 2021	38,664	786	0	7,884	383	0	47,717
Carrying amount as at 31 December 2021	38,664	786	0	7,884	383	0	47,717
Foreign currency translation difference	205	0	0	43	18	0	266
Reclassification	42	0	0	256	-298	0	0
Additions from business combinations	382	0	0	64	0	0	446
Addition	9,614	142	1,420	5,787	884	801	18,648
Disposal	-117	0	0	-32	0	0	-149
Depreciation	-8,752	-207	-20	-4,651	0	0	-13,630
Carrying amount as at 31 December 2022	40,038	721	1,400	9,351	987	801	53,298
Cost of acquisition/production	75,207	4,537	1,420	36,599	987	801	119,551
Accumulated depreciation	-35,169	-3,816	-20	-27,248	0	0	-66,253
Carrying amount as at 31 December 2022	40,038	721	1,400	9,351	987	801	53,298

During 2022, the Frequentis Group concluded agreements for the acquisition of property, plant and equipment totalling EUR 673 thousand (2021: EUR 740 thousand), which will be delivered and invoiced in 2023.

For information on the recognised right-of-use assets resulting from the application of IFRS 16, which are contained in the above table, see Note 36. Leases.

17. Intangible assets

in EUR thousand	Software and licences	Advances	Total
Carrying amount as at 31 December 2020	9,009	11	9,020
Foreign currency translation difference	200	0	200
Reclassification of advances	5	-5	0
Additions from business combinations	10,909	0	10,909
Addition	1,418	23	1,441
Disposal	-2	-4	-6
Amortisation	-3,847	0	-3,847
Carrying amount as at 31 December 2021	17,692	25	17,717
Cost of acquisition/production	35,406	25	35,431
Accumulated amortisation	-17,714	0	-17,714
Carrying amount as at 31 December 2021	17,692	25	17,717
Carrying amount as at 31 December 2021	17,692	25	17,717
Foreign currency translation difference	-6	0	-6
Reclassification of advances	0	0	0
Additions from business combinations	3,088	0	3,088
Addition	620	94	715
Disposal	-1	0	-1
Amortisation	-3,905	0	-3,905
Impairment losses recognised in profit or loss	-3,106	0	-3,106
Carrying amount as at 31 December 2022	14,382	119	14,501
Cost of acquisition/production	39,031	119	39,151
Accumulated amortisation	-24,649	0	-24,649
Carrying amount as at 31 December 2022	14,382	119	14,501

Having focused on software development for customer orders and made temporary savings on development projects in 2020 and 2021 due to the COVID-19 pandemic, in the reporting period the Frequentis Group spent EUR 26.8 million (2021: EUR 15.0 million) on in-house research and development work that was not funded by customers. This was expensed as incurred.

During 2022, the Frequentis Group concluded agreements for the purchase of intangible assets totalling EUR 12 thousand, which will be delivered and invoiced in 2023 (2021: EUR 14 thousand).

The amortisation of intangible assets included impairment losses of EUR 3,106 thousand. These impairment losses comprised the necessary valuation adjustments in connection with the purchase price allocation of capitalised product rights and intellectual property rights for four product families at two companies (ATRiCS Advanced Traffic Solutions GmbH and Frequentis Comsoft GmbH). These were necessary due to the negative development of these product areas. In both cases, the product rights were written down to zero.

As at the reporting date, there were no scenarios that would have resulted in a lower impairment loss.

18. Goodwill

in EUR thousand	Goodwill
Carrying amount as at 31 December 2020	2,886
Foreign currency translation difference	14
Additions from business combinations	2,263
Addition	0
Disposal	0
Impairment losses	-1,730
Carrying amount as at 31 December 2021	3,433
Cost of acquisition/production	6,235
Accumulated impairment losses	-2,802
Carrying amount as at 31 December 2021	3,433
Carrying amount as at 31 December 2021	3,433
Foreign currency translation difference	-11
Additions from business combinations	2,412
Addition	0
Disposal	0
Impairment losses	0
Carrying amount as at 31 December 2022	5,834
Cost of acquisition/production	8,636
Accumulated impairment losses	-2,802
Carrying amount as at 31 December 2022	5,834

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

	31 Dec. 2022 EUR thousand	31 Dec. 2021 EUR thousand
ATRiCS Advanced Traffic Solutions GmbH	0	0
Frequentis Comsoft GmbH	909	909
Frequentis Orthogon GmbH	2,263	2,263
Regola S.r.l.	2,412	0
Systems Interface Ltd.	197	208
team Technology Management GmbH	53	53
	5,834	3,433

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

The impairment test in accordance with IAS 36 was based on detailed plans for earnings, the statement of financial position, and capital expenditure for all cash-generating units for the next three years. These are prepared annually as part of the Group-wide budget planning process, taking into consideration the current business situation. For periods after the budget planning period, a long-term growth rate of 1% (2021: 1%) was determined and used to forecast future cash flows.

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

Impairment test 2022	ATRiCS Advanced Traffic Solutions GmbH	Frequentis Comsoft GmbH	Frequentis Orthogon GmbH	Regola S.r.l.	Systems Interface Ltd.	team Technology Management GmbH
Interest rate (WACC before taxes)	13.91%	12.4%	13.70%	16.63%	10.27%	11.44%
Recoverable amount in EUR thousand	negative	9,221	10,862	8,501	644	7,966
Carrying amount of the CGU including goodwill in EUR thousand	2,213	8,874	8,533	6,244	-63	2,007

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

In 2020, an impairment loss was recognised for the goodwill of Systems Interface Ltd. Since business stabilised in 2022 and future cash flows show a stable trend, it was not necessary to recognise an additional impairment loss in 2022. In view of the negative working capital, the Systems Interface Ltd. CGU has a negative carrying amount of EUR -63 thousand.

The impairment test in 2021 resulted in recognition of an impairment loss for ATRiCS Advanced Traffic Solutions GmbH. The difficult order situation, which was already evident in 2021 and was exacerbated in 2022 by the COVID-19 pandemic, led to a reduction in the forecast cash flows.

In 2021, the impairment test resulted in recognition of an impairment loss of EUR 1,730 thousand on the goodwill of ATRiCS Advanced Traffic Solutions GmbH. Due to the ongoing difficult situation in the airport business, in 2022 a further impairment loss had to be recognised for the product rights capitalised in the purchase price allocation (see Note 17. Intangible assets).

Regola S.r.l. was included in Frequentis' consolidated financial statements from the closing of the transaction in January 2022. In this context, a purchase price allocation was undertaken. As at the reporting date, there had not been any significant changes in the planning assumptions. As at the reporting date, the carrying amount of Regola S.r.l. would correspond to the recoverable amount if there was a reduction of 24.9% in cash flows or an increase of 4.2% in the discount rate.

The carrying amount of the CGU Frequentis Comsoft GmbH, including goodwill, would correspond to the recoverable amount if there was a reduction of 3.1% in cash flows or an increase of 0.3% in the discount rate.

The carrying amount of the CGU Frequentis Orthogon GmbH, including goodwill, would correspond to the recoverable amount if there was a reduction of 19.6% in cash flows or an increase of 2.39% in the discount rate.

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

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

19. Investments accounted for at equity (associated companies)

	31 Dec. 2022 EUR thousand	31 Dec. 2021 EUR thousand
Investments accounted for at equity	2,097	1,656

Name of associated company	Registered office	Voting rights and shareholding as at 31 Dec. 2022	Voting rights and shareholding as at 31 Dec. 2021
Aviamaps Oy	Valkeakoski	25%	
GroupEAD Europe S.L.	Madrid	28%	28%
Mission Embedded GmbH	Vienna	20%	20%
Nemergent Solutions S.L.	Bilbao	15%	15%
AIRNAV Technology Services Inc.	Iloilo	40%	40%
AIRlabs Austria GmbH	Graz	18%	18%

The acquisition of the 51% interest in Regola S.r.l. includes the following associated companies:

Name of associated company	Registered office	Voting rights and shareholding as at 31 Dec. 2022	Equity investment as at the acquisition date (5 January 2022) EUR thousand
AMANTEA Ltd.	Zabbar	50%	2
Lift S.r.l.	Cagliari	24%	0
Nowtech S.r.l.	Sassari	20%	150

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

On 1 September 2022, the Frequentis Group acquired a 25% stake in Aviamaps Oy, which has its registered office in Valkeakoski, Finland. The interest was acquired through BlueCall Systems GmbH (a wholly owned subsidiary of Frequentis AG).

Aviamaps produces software for drone flight planning and airspace management and offers a real-time aviation maps platform for drone flights. The Frequentis Group had previously worked with Aviamaps on drone research projects. In 2023, Aviamaps' software will be integrated into the Frequentis solution for automatic approval of drone flights in Austria.

The table shows the development of this investment:

		2022 EUR thousand
Sep. 2022	Purchase price payment	125
	Attributable profit/loss in the reporting period	15
31 Dec. reporting period	Equity investment in Aviamaps Oy	140

Initial recognition resulted in goodwill of EUR 124 thousand, which is recognised in investments accounted for at equity.

The following table contains summarised financial information on this company as at the last reporting date (31 December 2022) and the pro rata earnings since purchase of the equity investment (September to December 2022):

	31 Dec. 2022 EUR thousand
Aviamaps Oy	
Non-current assets	5
Current assets	87
Non-current liabilities	0
Current liabilities	27
Net assets (100%)	65
Frequentis Group's share of net assets (25%)	16
Goodwill	124
Carrying amount of the stake in the associated company	140
Revenues	89
Profit from continuing operations (100%)	61
Other comprehensive income (100%)	0
Total comprehensive income (100%)	61
Frequentis Group's share of the profit from continuing operations (25%)	15
Frequentis Group's share of other comprehensive income (25%)	0
Frequentis Group's share of total comprehensive income (25%)	15

The Frequentis Group holds 28% of the shares and voting rights in **GroupEAD Europe S.L.**, Madrid. The carrying amount of this investment developed as follows (based on the most recent available financial statements for 2021 and the dividends already received for 2022):

		2022 EUR thousand	2021 EUR thousand
31 Dec. prior year	Equity investment in GroupEAD Europe S.L.	491	491
	Attributable profit in prior year	58	124
	Less dividend paid for the prior year	-58	-124
	Provisional attributable profit in the reporting period	56	56
	Less dividend paid in the reporting period	-56	-56
31 Dec. reporting period	Equity investment in GroupEAD Europe S.L.	491	491

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

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

	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
GroupEAD Europe S.L.		
Non-current assets	301	264
Current assets	2,779	2,870
Non-current liabilities	0	0
Current liabilities	1,119	940
Net assets (100%)	1,961	2,194
Frequentis Group's share of net assets (28%)	549	614

	31 Dec. 2021 EUR thousand	31 Dec. 2020 EUR thousand
GroupEAD Europe S.L.		
Dividend paid in the following year	-58	-124
Carrying amount of the stake in the associated company	491	491
Revenues	7,127	7,159
Profit from continuing operations (100%)	409	642
Other comprehensive income (100%)	0	0
Total comprehensive income (100%)	409	642
Total comprehensive income (28%)	114	180
Earnings included in the prior year (28%)	-56	-56
Share of earnings for the following year included due to dividends received (28%)	56	56
Frequentis Group's share of total comprehensive income	114	180

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

	2022 EUR thousand	2021 EUR thousand
31 Dec. prior year		
Equity investment in Mission Embedded GmbH	362	246
Attributable profit/loss in the reporting period	116	116
Actuarial losses in accordance with IAS 19	4	0
31 Dec. reporting period	482	362

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 2022):

	31 Dec. 2022 EUR thousand	31 Dec. 2021 EUR thousand
Mission Embedded GmbH		
Non-current assets	412	307
Current assets	6,577	4,820
Non-current liabilities	275	256
Current liabilities	4,302	3,061
Net assets (100%)	2,412	1,809
Frequentis Group's share of net assets (20%)	482	362
Carrying amount of the stake in the associated company	482	362
Revenues	8,766	8,354
Profit from continuing operations (100%)	580	581
Other comprehensive income (100%)	22	0
Total comprehensive income (100%)	602	581
Frequentis Group's share of the profit from continuing operations (20%)	116	116
Frequentis Group's share of other comprehensive income (20%)	4	0
Frequentis Group's share of total comprehensive income (20%)	120	116

In 2020, the Frequentis Group acquired a 15% interest in **Nemergent Solutions S.L.**, which has its registered office in Bilbao. The interest was acquired through BlueCall Systems GmbH (a wholly owned subsidiary of Frequentis AG).

Nemergent Solutions S.L. operates in mission-critical services (3GPP), for example, MCPTT (mission-critical push-to-talk) via LTE. The Frequentis Group had previously worked on joint projects in the field of public transport and public safety, where Nemergent Solutions contributed technology for application services and mobile end devices for emergency services. This collaboration was strategically expanded and deepened because the LTE mobile communications standard offers new opportunities in safety-critical broadband communication.

The Frequentis Group has classified its influence as significant, despite the 15% shareholding, due to the significant level of management involvement in this associated company.

The table shows the development of this investment:

		2022	2021
		EUR thousand	EUR thousand
31 Dec. prior year	Equity investment in Nemergent Solutions S.L.	731	707
	Attributable profit/loss in the reporting period	16	39
	Less dividend paid in the reporting period	0	-15
31 Dec. reporting period	Equity investment in Nemergent Solutions S.L.	747	731

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

	31 Dec. 2022	31 Dec. 2021
	EUR thousand	EUR thousand
Nemergent Solutions S.L.		
Non-current assets	1,359	521
Current assets	1,034	1,606
Non-current liabilities	543	450
Current liabilities	249	182
Net assets (100%)	1,601	1,495
Frequentis Group's share of net assets (15%)	240	224
Goodwill	507	507
Carrying amount of the stake in the associated company	747	731
Revenues	1,036	1,226
Profit from continuing operations (100%)	106	265
Other comprehensive income (100%)	0	0
Total comprehensive income (100%)	106	265
Frequentis Group's share of the profit from continuing operations (15%)	16	39
Frequentis Group's share of other comprehensive income (15%)	0	0
Frequentis Group's share of total comprehensive income (15%)	16	39

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

		2022	2021
		EUR thousand	EUR thousand
31 Dec. prior year	Equity investment in AIRNAV Technology Services Inc.	49	40
	Attributable profit/loss in the reporting period	2	9
31 Dec. reporting period	Equity investment in AIRNAV Technology Services Inc.	51	49

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

The interest in AIRNAV Technology Services Inc. was increased from 40% to 65% as at 20 February 2023, so control over this company was obtained. The consideration of EUR 35 thousand paid for this in the reporting period is recognised in the line item advance payments for non-current assets.

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

The table shows the development of this investment:

		2022	2021
		EUR thousand	EUR thousand
31 Dec. prior year	Equity investment in AIRlabs Austria GmbH	24	26
	Attributable profit/loss in the reporting period	-2	-2
31 Dec. reporting period	Equity investment in AIRlabs Austria GmbH	22	24

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

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

	31 Dec. 2022	31 Dec. 2021
	EUR thousand	EUR thousand
Non-current assets	147	108
Current assets	1,037	923
Non-current liabilities	78	73
Current liabilities	860	705
Net assets (100%)	246	253
Frequentis Group's share of net assets	72	73
Revenues	1,081	928
Profit/loss for the period	-4	9
Frequentis Group's share of profit/loss for the period	0	7
Frequentis Group's share of other comprehensive income	0	0
Frequentis Group's share of total comprehensive income	0	7

The interests in AMANTEA Ltd., Lift S.r.l., and Nowtech S.r.l. acquired as part of the acquisition of Regola S.r.l. developed as follows:

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

Since these companies are not material associated companies, the key financial data for Lift S.r.l. and Nowtech S.r.l. (as at 31 December 2022) are summarised in aggregate form in the following table. The table does not contain any key financial data for AMANTEA Ltd. because the financial data for this company were not available as at the reporting date.

	31 Dec. 2022
	EUR thousand
Non-current assets	327
Current assets	532
Non-current liabilities	203
Current liabilities	410
Net assets (100%)	246
Frequentis Group's share of net assets	49
Revenues	432
Profit/loss for the period	54
Frequentis Group's share of profit/loss for the period	13
Frequentis Group's share of other comprehensive income	0
Frequentis Group's share of total comprehensive income	13

From the annual profit of all investments accounted for at equity, a proportionate share of EUR 275 thousand (2021: EUR 342 thousand) is recognised. There were no unrecognised losses in the reporting period or the prior year.

20. Time deposits, cash and cash equivalents

	31 Dec. 2022	31 Dec. 2021
	EUR thousand	EUR thousand
Long-term time deposits	10,000	10,000
Loss allowance	-10,000	-10,000
	0	0

	31 Dec. 2022	31 Dec. 2021
	EUR thousand	EUR thousand
Short-term time deposits	18,000	10,199
Loss allowance	-8,000	-8,000
	10,000	2,199

	31 Dec. 2022 EUR thousand	31 Dec. 2021 EUR thousand
Cash and cash equivalents	94,198	116,616
Loss allowance	-12,818	-12,818
	81,380	103,798

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

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

In accordance with IFRS 9, based on the expected credit loss (ECL) model, loss allowances were established at the date of recognition of the bank deposits on the basis of the expected potential credit losses. An expected credit loss of 0.04% was derived for another bank due to a poorer rating and higher balance as at 31 December 2022 and a loss allowance of EUR 9 thousand was calculated. Since the loss allowance was not significant, it was not recognised in the reporting period.

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

More than 75% of the cash and cash equivalents, including deposits due on demand, of EUR 91,380 thousand as at 31 December 2022 was deposited with eleven system-relevant major banks in Austria and Germany. Less than 25% was deposited with approximately 25 other banks in Europe, Australia, Asia, and the Americas.

21. Inventories

	31 Dec. 2022 EUR thousand	31 Dec. 2021 EUR thousand
Raw materials and supplies	15,407	9,264
Work in progress	948	672
Finished goods	2,277	2,411
Merchandise	2,370	2,801
Advance payments made	724	1,929
	21,726	17,077

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

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

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

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

The impairment loss on inventories was EUR 346 thousand in 2022 (2021: EUR 299 thousand). Reversals of EUR 445 thousand were recognised in 2022 (2021: EUR 55 thousand).

22. Trade accounts receivable

	2022 EUR thousand	2021 EUR thousand
Trade accounts receivable, gross	78,322	70,981
Individual loss allowances	-931	-1,144
Loss allowances pursuant to IFRS 9	-403	-404
Receivables from affiliated companies	2	2
Total trade accounts receivable, net	76,990	69,435

The trade accounts receivable as at 31 December 2022 include EUR 1,707 thousand resulting from the acquisition.

Trade accounts receivable contain non-current items of EUR 729 thousand (31 December 2021: EUR 789 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 proposal process, credit insurance, advances by customers or letters of credit are used to reduce the credit risk.

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

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

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

	2022 EUR thousand	2021 EUR thousand
As at 31 December of the previous year	1,548	738
Foreign currency translation	-14	23
Change in loss allowances pursuant to IFRS 9	-1	109
Additions	293	806
Utilisation	-195	0
Reversal	-297	-128
As at 31 December of the financial year	1,334	1,548

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

	Weighted average loss rate 2022	Weighted average loss rate 2021	2022 EUR thousand	2021 EUR thousand
Trade accounts receivable, net			76,988	69,422
of which: neither overdue nor impaired	0.05%	0.04%	54,574	55,099
of which, overdue but not impaired				
Up to 30 days	0.16%	0.15%	17,170	9,491
30-60 days	0.70%	0.64%	2,187	1,603
60-90 days	0.61%	1.60%	999	298
90-180 days	4.29%	1.79%	827	1,729
180-210 days	7.24%	8.64%	93	7
> 210 days	19.33%	20.69%	1,138	1,195

Due to their insignificance, receivables from affiliated companies in the amount of EUR 2 thousand (2021: receivables from affiliated and associated companies in the amount of EUR 13 thousand) are not included in the presentation of the structure of overdue trade accounts receivable.

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

Since most customers are in the public sector or are large international companies, the COVID-19 pandemic and the war in Ukraine did not result in any significant defaults on receivables in the reporting period. Although longer payment terms have been agreed with some customers, due to its customer structure, the Frequentis Group does not expect an increase in defaults. However, since an increase in insolvencies is expected in 2023 and subsequent years, the Frequentis Group has defined a scale factor of 1.5, which is taken into consideration when calculating loss allowances pursuant to IFRS 9. This reflects the actual and forecast insolvency rates due to the COVID-19 pandemic and the war in Ukraine. If a customer is granted a temporary extension of a payment deadline (which may be up to 60 days), the payment is still classified as overdue on the basis of the original due date.

23. Contract assets

	31 Dec. 2022 EUR thousand	31 Dec. 2021 EUR thousand
Contract assets, gross	85,364	70,658
Loss allowances pursuant to IFRS 9	-19	-15
Total contract assets	85,345	70,643
Advances from customers	-34,870	-32,290
	50,475	38,353

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

The contract assets of EUR 38,353 thousand recognised as at 1 January (2021: EUR 38,420 thousand) include EUR 32,055 thousand (2021: EUR 30,731 thousand) that were invoiced in the reporting period.

Of the total contract assets of EUR 50,475 thousand as at December 31, 2022 (2021: EUR 38,353 thousand), it is expected that EUR 41,161 thousand (2021: EUR 36,492 thousand) will be charged to customers in the following year – based on the expected project progress and contractual clauses. Contract assets with a carrying amount of EUR 9,314 thousand (2021: EUR 1,861 thousand) are not expected to be invoiced until after 2023. Since realisation of the contract assets is expected to take place within the operating cycle, all contract assets are classified as current. It is assumed that there are no relevant default risks for contract assets. The loss allowances for contract assets recognised in the reporting period amounted to EUR 19 thousand (2021: EUR 15 thousand). In the case of orders for which the Group makes advance payments, the creditworthiness of customers is carefully reviewed. These orders primarily relate to work for public authorities or major international companies.

Based on the sensitivity analysis, a 10% reduction in contract costs not yet incurred would increase contract assets by EUR 6,516 thousand (2021: EUR 5,986 thousand), while a 10% increase in contract costs not yet incurred would reduce contract assets by EUR 5,966 thousand (2021: EUR 5,521 thousand).

24. Contract costs

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

The development of capitalised contract costs is as follows:

	2022 EUR thousand	2021 EUR thousand
As at 1 January	3,711	3,028
Changes in reporting entities	0	133
Contract costs capitalised in the reporting period	3,480	2,446
Amortisation in the reporting period	-3,146	-1,896
Impairment losses	-21	0
As at 31 December	4,024	3,711

The amortisation expense for contract costs in the next 12 months is expected to amount to EUR 3,148 thousand (2021: EUR 2,501 thousand). Since the contract costs are expected to be incurred within the operating cycle, all contract costs are classified as current.

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

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

25. Other current assets

	31 Dec. 2022 EUR thousand	31 Dec. 2021 EUR thousand
Receivables from grants and subsidies	1,860	435
Positive fair value of cash flow hedges and MTM valuation	661	92
Other financial assets	238	145
Other current financial assets	2,759	672
Prepaid expenses and deferred charges	5,869	4,462
Receivables from fiscal authorities (excluding income taxes)	1,508	1,281
Receivables from research grants and incentives	3,569	1,167
Receivables from investment grants	152	247
Other assets	262	232
Other current non-financial assets	11,360	7,389

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-value bearer shares in one or more tranches in return for cash or payment in kind. The Executive Board was also authorised, subject to the approval of the Supervisory Board, to fully or partially exclude shareholders' subscription rights and, subject to the approval of the Supervisory Board, to define further details of the issue conditions (especially the issue price, type of contribution in kind, rights of the shares, exclusion of subscription rights, etc.) (authorised capital).

Capital increase in 2021

The capital increase for cash excluding existing shareholders' subscription rights for the employee participation programme, as resolved by the Executive Board on 2 March 2021 and approved by the Supervisory Board on 27 March 2021, was successfully completed in May 2021. Frequentis AG thus increased its share capital by EUR 80 thousand, from EUR 13,200 thousand to EUR 13,280 thousand by issuing 80,000 new bearer shares in return for cash contributions, excluding the subscription rights of existing shareholders. The total number of issued shares as at 31 December 2021 was 13,280,000.

Treasury shares

At the Extraordinary General Meeting of Frequentis AG on 20 September 2019, the Executive Board was authorised, for a period of 30 months, to purchase shares in Frequentis AG pursuant to Section 65 (1) subsections 4 and 8 of the Austrian Companies Act (AktG), both via the stock market and outside the stock exchange, and to exclude the general selling possibilities of shareholders related to such purchase. Furthermore, the Executive Board was authorised to reduce the share capital by cancelling shares in Frequentis AG without a further resolution of the General Meeting.

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

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

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

In May 2021, Frequentis AG repurchased a total of 15,500 treasury shares with a total value of EUR 384 thousand. With the approval of the Supervisory Board, in May 2022 the Executive Board passed a resolution to transfer 6,590 treasury shares to the Chairman of the Executive Board for achievement of the targets for the LTIP 2019, under exclusion of the subscription rights of existing shareholders. As at 31 December 2022, Frequentis held 8,910 treasury shares (31 December 2021: 15,500). That was 0.0671% of the share capital.

The total number of issued shares was 13,280,000 (2021:13,280,000).

At year-end 2022, the shareholder structure of Frequentis AG was as follows:

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

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

Dividend

The net profit of Frequentis AG stated in the individual financial statements as at 31 December 2022 is EUR 18,953 thousand (31 December 2021: EUR 13,628 thousand) and the accumulated profit is EUR 62,361 thousand (31 December 2021: EUR 46,062 thousand).

The Annual General Meeting of Frequentis AG on 2 June 2022 passed a resolution to pay a dividend of EUR 0.20 per no-par-value share entitled to the dividend for the 2021 financial year. The dividend less statutory capital gains tax of 27.5% was paid in June 2022.

In 2022, the issued shares received a dividend distribution of EUR 2,654 thousand (EUR 0.20 per share) for 2021 (2021 for 2020: EUR 1,990 thousand or EUR 0.15 per share).

27. Reserves

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

Item	Amount before	Income taxes	Amount after	Amount before	Income taxes	Amount after
	income taxes	2022	income taxes	income taxes	2021	income taxes
	EUR thousand	EUR thousand	EUR thousand	EUR thousand	EUR thousand	EUR thousand
Foreign currency translation	284	0	284	1,117	0	1,117
Measurement of cash flow hedges	297	-76	221	-298	74	-224
Remeasurement of post-employment benefits	4,020	-1,176	2,844	-169	23	-146
Investments accounted for at equity – amounts recognised in other comprehensive income	4	0	4	0	0	0
			3,353			747

28. Share-based payment

Frequentis AG agreed long-term incentive plans with the Chairman of the Executive Board, Mr. Norbert Haslacher, in 2019, 2020, 2021, and 2022 (LTIP 2019, LTIP 2020, LTIP 2021, and LTIP 2022).

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

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

The service period for the fulfilment of the targets has been set at three years. The targets for the key indicators were set by the Supervisory Board. On the settlement date (at the earliest three years after the grant date), a maximum of 14,000 shares for the LTIP 2019, 17,000 shares each for the LTIP 2020 and 2021, and maximum of 18,000 shares for the LTIP 2022 (gross, i.e., before deduction of taxes and fees) but no more than 200% of the beneficiary's annual gross base salary will be granted if the targets are fully achieved. Settlement is effected by transferring the number of shares corresponding to the net amount of the award to the respective securities account.

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

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

The following table summarises the main conditions for the share-based payment granted in the reporting period (the LTIP 2019 ended in the reporting period):

	LTIP 2022	LTIP 2021	LTIP 2020	LTIP 2019
Beginning of the plan	1 Jan. 2022	1 Jan. 2021	1 Jan. 2020	1 Jan. 2019
Date of approval by General Meeting	2 June 2022	20 May 2021	14 May 2020	20 Sep. 2019
Grant date	2 June 2022	15 June 2021	14 May 2020	30 Sep. 2019
End of service period	31 Dec. 2024	31 Dec. 2023	31 Dec. 2022	31 Dec. 2021
Vesting date	30 Apr. 2025	30 Apr. 2024	30 Apr. 2023	30 Apr. 2022
Expected target achievement	97%	126%	130%	103%
Expected no. of shares	17,370	17,000	17,000	14,000
Maximum no. of shares	18,000	17,000	17,000	14,000
Bonus shares allocated	None	None	None	None

The agreed targets are measured against the following performance indicators:

LTIP 2022	LTIP 2021	LTIP 2020	LTIP 2019
Total shareholder return (TSR)	Total shareholder return (TSR)	Total shareholder return (TSR)	Total shareholder return (TSR)
Revenue growth	Increase in operating performance through key accounts	Orders on hand	Organic growth in operating performance
Earnings increase	Growth through new business development	Growth in the regions	EBIT margin
Employee satisfaction		Growth through acquisitions	Profit margin
			Development of key accounts
			Non-refinanced R&D expenses as a percentage of total operating performance
			Employee satisfaction
			Customer satisfaction

In May 2022, the targets set for the LTIP 2019 were evaluated for the performance period from 1 January 2019 to 31 December 2021 and it was established that they had been fully met, so 14,000 treasury shares (gross number of shares before taxes) were to be transferred to the Chairman of the Executive Board. Taking into consideration the tax to be withheld, 6,590 treasury shares were transferred in this context.

Of the expected total future expense relating to the LTIPs, the portion already earned as at the reporting date is recognised in shareholders' equity. This is based on the fair value on the grant date. The total expected expense for the LTIP obligation is measured at the fair value of the share relative to the share price on the date of the agreement, multiplied by the number of shares granted and the expected target achievement. In the reporting period, EUR 427 thousand (2021: EUR 399 thousand) including payroll-related costs was recognised in personnel expenses in the consolidated statement of comprehensive income and in shareholders' equity for the LTIPs.

For the LTIPs, it was estimated that both the market-oriented targets and the non-market-oriented targets will be met. Therefore, the effect of the market-oriented targets must be reflected in the expected level of target achievement and not in the fair value of the shares.

29. Non-controlling interests

The non-controlling interests relate to the following subsidiaries:

	31 Dec. 2022 EUR thousand	31 Dec. 2021 EUR thousand
ATRICS Advanced Traffic Solutions GmbH, Freiburg	132	1,725
ELARA Leitstellentechnik GmbH, Aachen	0	0
Frequentis DFS Aerosense GmbH, Vienna	135	95
Regola S.r.l., Turin	0	0
Secure Service Provision GmbH, Leipzig	472	407
Systems Interface Ltd., Bordon	-432	-603
team Technology Management GmbH, Vienna	1,766	1,793
TEAM Technology Management GmbH, Gräfelfing	151	19
	2,224	3,436

Due to the existence of put options for non-controlling shareholders in ELARA Leitstellentechnik and Regola, the corresponding interests are recognized as financial liabilities.

There is also a put option held by non-controlling interests at Systems Interface Ltd. However, this option is not exercisable due to the contractual provisions and is not expected to be exercisable in the future.

team Technology Management GmbH distributed a proportionate dividend of EUR 588 thousand to non-controlling shareholders in the reporting period, Secure Service Provision GmbH distributed a proportionate dividend of EUR 57 thousand, and ELARA Leitstellentechnik distributed a proportionate dividend of EUR 308 thousand.

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

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

*) excluding goodwill

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

*) excluding goodwill

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

	Amounts before intragroup elimination				Earnings attributable to non-controlling interests		
	Operating performance	Profit for the period	Other earnings	Total comprehensive income	Profit for the period	Other earnings	Total comprehensive income
2022							
ATRICS Advanced Traffic Solutions GmbH	1,265	-3,253	0	-3,253	-1,594	0	-1,594
ELARA Leitstellentechnik GmbH	4,274	831	0	831	407	0	407
Frequentis DFS Aerosense GmbH	5,737	133	0	133	40	0	40
Regola S.r.l.	10,115	712	162	874	349	79	428
Secure Service Provision GmbH	3,362	614	0	614	123	0	123
Systems Interface Ltd.	4,207	295	0	295	144	27	171
team Technology Management GmbH	9,924	1,130	16	1,146	554	8	562
TEAM Technology Management GmbH	1,148	178	0	178	132	0	132
Total					155	113	269

	Amounts before intragroup elimination				Earnings attributable to non-controlling interests		
	Operating performance	Profit for the period	Other earnings	Total comprehensive income	Profit for the period	Other earnings	Total comprehensive income
2021							
ATRICS Advanced Traffic Solutions GmbH	1,885	-951	0	-951	-466	0	-466
ELARA Leitstellentechnik GmbH	3,308	631	0	631	309	0	309
Frequentis DFS Aerosense GmbH	1,192	17	0	17	5	0	5
Secure Service Provision GmbH	3,234	571	0	571	114	0	114
Systems Interface Ltd.	3,680	111	0	111	54	-41	13
team Technology Management GmbH	10,427	1,773	9	1,782	869	4	873
TEAM Technology Management GmbH	278	-119	0	-119	-88	0	-88
Total					797	-37	760

30. Non-current provisions

	31 Dec. 2022 EUR thousand	31 Dec. 2021 EUR thousand
Provisions for severance payments	14,529	16,110
Provisions for pensions	4,356	6,046
Less pension insurance scheme	-2,365	-3,427
	1,991	2,619
Provisions for anniversary bonuses	302	389
Other provisions	441	874
Total non-current provisions	17,263	19,992

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

Provisions for severance payments

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

The corresponding severance payments will result in outflows between 2023 and 2047.

Obligations for severance payments were measured using the following parameters:

	2022	2021
Interest rate	4.14%	1.0%
Wage and salary trend	4.6%	3.3%
Average term of the defined benefit obligation	9.88 years	11.2 years

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

	2022 EUR thousand	2021 EUR thousand
Present value of severance payment obligations (DBO) as at 1 January = provisions as at 1 January	16,110	15,395
Foreign currency translation	3	2
Additions from business combinations	816	0
Current service cost (CSC)	839	704
Interest cost (IC)	173	152
Actual payments made	-659	-425
Recognised actuarial loss (+)/gain(-)	-2,753	282
Present value of severance payment obligations (DBO) as at 31 December = provisions as at 31 December	14,529	16,110

The provisions for severance payments relate mainly to employees who joined the Austrian companies in the Frequentis Group before 31 December 2002 as a change in Austrian law led to a switch from defined benefit to defined contribution severance payments on 1 January 2003. The new regulation applies to employees who took up employment with the Group after 31 December 2002. For these employees, the Group pays a monthly contribution to an external post-employment benefit plan which has to guarantee the severance payments, so the Group has no severance payment obligations for these employees. The expenses for this were EUR 1,018 thousand in the reporting period (2021: EUR 934 thousand).

In addition, voluntary severance payments amounting to EUR 185 thousand were made in the reporting period (2021: EUR 1,015 thousand).

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

	2022 EUR thousand	2021 EUR thousand
Changes in demographic assumptions	0	0
Changes in financial assumptions	-2,990	500
Other changes	237	-218
Total	-2,753	282

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

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

Interest rate	Salary increases	DB0 31 Dec. 2022 EUR thousand
4.14%	5.1%	15,195
3.99%	4.6%	14,734
4.14%	4.6%	14,529
4.29%	4.6%	14,328
4.14%	4.1%	13,901

Interest rate	Salary increases	DB0 31 Dec. 2021 EUR thousand
1.0%	3.8%	16,990
0.85%	3.3%	16,376
1.0%	3.3%	16,110
1.15%	3.3%	15,851
1.0%	2.8%	15,287

Provisions for pensions

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

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

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

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

The pension benefit obligations were measured using the following parameters:

	2022	2021
Interest rate	4.2%	1.3%
Retirement age	60/65 years	60/65 years
Average term of the defined benefit obligation	11.75 years	14.17 years

Development of pension provisions and plan assets:

	2022 EUR thousand	2021 EUR thousand
Present value of the defined benefit obligation (DBO) as at 1 January	6,046	3,260
Fair value of plan assets	-3,427	-2,696
+ Provisions/- surplus plan assets as at 1 January	2,619	564
Present value of the defined benefit obligation (DBO) as at 1 January	6,046	3,260
Additions from business combinations	0	2,720
Service cost	228	204
Interest cost	78	47
Pension payments	-137	-109
Recognised actuarial losses (+)/gains (-)	-1,859	-76
Present value of the pension benefit obligations (DBO) as at 31 December	4,356	6,046
Fair value of plan assets as at 1 January	3,427	2,696
Reclassified	-573	0
Additions from business combinations	0	537
Return on plan assets	37	41
Payments made	175	222
Payments received from plan assets	-108	-88
Recognised actuarial losses (-)/gains (+)	43	19
Adjustments for the net asset ceiling	-636	0
Fair value of plan assets as at 31 December	2,365	3,427
Provisions as at 31 December		
Present value of the pension benefit obligation (DBO)	4,356	6,046
Fair value of plan assets	-2,365	-3,427
+ Provisions/- surplus plan assets as at 31 December	1,991	2,619

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

In addition, voluntary and statutory defined contribution pension expenses in the amount of EUR 2,218 thousand were recognised in the reporting period (2021: EUR 1,453 thousand).

It is expected that EUR 221 thousand will be paid into the pension insurance in 2023 (2022: EUR 222 thousand).

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

	2022 EUR thousand	2021 EUR thousand
Changes in demographic assumptions	0	0
Changes in financial assumptions	-1,858	-112
Other changes	-1	36
Other changes to plan assets	-43	-19
Total	-1,902	-95

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

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

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

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

Provisions for anniversary bonuses

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

Obligations for anniversary bonuses were measured by applying an interest rate of 4.14% (2021: 1.0%) and an average term of 7.2 years (2021: 7.1 years).

	2022	2021
	EUR thousand	EUR thousand
Present value of the anniversary bonus obligations (DBO) corresponding to the provisions as at January 1	389	369
Current service cost (CSC)	41	42
Interest cost (IC)	4	4
Actual payments made	-47	-23
Recognised actuarial loss (+)/gain(-)	-85	-3
Present value of the defined benefit anniversary bonus obligations (DBO) as at 31 December = provisions as at 31 December	302	389

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

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

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

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

Other non-current provisions

The other non-current provisions comprise:

	As at 31 Dec. 2021	Foreign currency translation	Interest EUR	Utilisation EUR	Reversal EUR	Added EUR	Reclassified liabilities	As at 31 Dec. 2022
	thousand	thousand	thousand	thousand	thousand	thousand	EUR thousand	thousand
Provisions for leave based on period of service	99	-1	8	-11	-38	47	-1	103
Provisions for projects	529	0	0	-318	0	0	0	211
Other	246	-1	1	-172	0	53	0	127
	874	-2	9	-501	-38	100	-1	441

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

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

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

31. Contract liabilities

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

The following table shows the structure of contract liabilities:

	31 Dec. 2022 EUR thousand	31 Dec. 2021 EUR thousand
Advances for customer projects	80,029	83,106
Advances offset against contract assets	-32,048	-29,075
	47,981	54,031
Other contract liabilities	13,382	6,332
Other contract liabilities offset against contract assets	-2,822	-3,215
	10,560	3,117
Accrued revenue for maintenance contracts	8,798	7,500
Liabilities for outstanding performance obligations for customer orders after final invoicing (current)	691	708
Liabilities for outstanding performance obligations for customer orders after final invoicing (non-current)	5	32
Total contract liabilities	68,035	65,388

Other contract liabilities contain contractual claims to advance payments.

EUR 3,018 thousand (2021: EUR 908 thousand) of the contract liabilities have a term of more than 12 months. Since the contract costs are expected to be incurred within an operating cycle, all contract costs are classified as current.

32. Other liabilities

The other liabilities comprise:

	31 Dec. 2022 EUR thousand	31 Dec. 2021 EUR thousand
Liability for put option, non-controlling interests	3,262	0
Loans from non-controlling interests	426	449
Earn-out payment liability	0	402
Loan from FFG (Austrian Research Promotion Agency)	284	0
Other liabilities	267	7
Total non-current financial liabilities	4,239	858
Liability for put option, non-controlling interests	2,786	2,036
Negative fair values of cash flow hedges and MTM valuation	1,591	1,562
Earn-out payment liability	250	0
Loans from non-controlling interests	30	30
Other liabilities	1,430	1,368
Total current financial liabilities	6,087	4,996
Accrual for holidays not yet taken	4,642	3,919
Liabilities to the Austrian fiscal authorities (excluding income taxes)	1,968	2,694
Advances received in connection with grants and subsidies	762	1,065
Liabilities to health insurers	702	370
Accrual for overtime	635	710
Accrual for consultancy costs	595	702
Other liabilities	957	673
Total current non-financial liabilities	10,261	10,133

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

This liability was remeasured as at the reporting date. Due to the difficult order situation, which was already evident in 2021 and was exacerbated in 2022 by the COVID-19 pandemic, the liability was reduced to zero. The development of the fair value of the earn-out payment, which is allocated to level 3, is as follows:

	Estimate as at 31 Dec. 2022 EUR thousand	Estimate as at 31 Dec. 2021 EUR thousand
Earn-out		
Target value	3,570	3,570
+/- Earnings-related adjustment (achievement of an EBIT target)	-3,570	-3,570
+/- Net cash/debt as at 31 December 2024	0	402
+/- Difference from target working capital as at 31 December 2024	0	0
Earn-out claim	0	402

The fair value of this earn-out liability was reduced by EUR 402 thousand in the reporting period (2021: EUR 850 thousand); this was recognised in other operating income.

The current earn-out liability is a component of the contractually agreed purchase price for Regola S.r.l., which was acquired in 2022. It is based on the local financial statements and is contingent upon achievement of an EBIT target as at 31 December 2022.

The non-current liability for a put option of non-controlling interests relates to an option held by non-controlling interests in Regola S.r.l. to transfer these interests to Frequentis. If this option is exercised, Frequentis has an irrevocable obligation to acquire the interests in this business. The put option can be exercised at the earliest on 30 June 2027.

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

The relevant equity amount is the enterprise value less net financial debt of Regola S.r.l. and ELARA Leitstellentechnik GmbH. The enterprise value is determined using a multiples-based valuation. The basis for this multiples-based valuation is EBIT for the 12 months directly prior to exercise of the option (in the case of Regola S.r.l.) and the average revenues and EBIT reported in the annual financial statements for the last two financial years immediately prior to exercise of the option (in the case of ELARA Leitstellentechnik GmbH).

33. Other current provisions

The other current provisions comprise:

	As at 31 Dec. 2021	Foreign exchange difference	Additions from business combinations	Utilisation	Reversal	Added	As at 31 Dec. 2022
	EUR thousand	EUR thousand	EUR thousand	EUR thousand	EUR thousand	EUR thousand	EUR thousand
Bonuses	11,221	13	91	-11,326	0	11,207	11,207
Provisions for projects	2,977	91	0	-3,068	0	1,220	1,220
Litigation costs	1,744	0	0	-119	-598	0	1,027
Other	1,473	0	34	-955	-303	1,211	1,460
	17,415	104	125	-15,468	- 901	13,638	14,914

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

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

The provisions for litigation costs relate to the lawsuits filed in connection with Commercialbank Mattersburg.

It is expected that the current provisions will result in actual outflows in the 2023 financial year.

Based on the sensitivity analyses performed, a 10% reduction in the remaining costs would reduce the provisions for projects by EUR 543 thousand (2021: EUR 1,104 thousand) and a 10% increase in the remaining costs would increase the provisions for projects by EUR 582 thousand (2021: EUR 1,469 thousand).

Other information

34. Consolidated cash flow statement

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

The reduction in the cash flow from operating activities from EUR 48,753 thousand to EUR 14,112 thousand was mainly attributable to the rise of EUR 12,122 thousand in contract assets, compared with a reduction of EUR 8,565 thousand in 2021, and to the change in other receivables (increase of EUR 6,298 thousand in 2022 compared with a decrease of EUR 3,402 thousand in 2021).

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

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

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

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

	Carrying amount as at 1 Jan. 2022 EUR thousand	Changes in reporting entities EUR thousand	Exchange rate differences EUR thousand	Cash flow EUR thousand	Addition IFRS 16 EUR thousand	Disposal IFRS 16 EUR thousand	Reclassification of maturities EUR thousand	Carrying amount as at 31 Dec. 2021 EUR thousand
Non-current liabilities	5,387	0	37	-70	0	0	-1,085	4,269
Non-current lease liabilities	31,811	90	242	0	4,996	0	-7,354	29,785
Current liabilities	1,315	0	14	-1,329	0	0	1,085	1,085
Current lease liabilities	7,292	457	90	-8,228	857	-28	7,354	7,794
Total liabilities for financing activities	45,805	547	383	-9,627	5,853	-28	0	42,933

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

35. Financial instruments

Overview

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

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

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

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

Liquidity risk

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

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

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

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

The following table shows the contractually agreed (undiscounted) payments of interest and principal for derivative and non-derivative financial liabilities. The variable interest payments for financial instruments were derived from the last applicable interest rates prior to 31 December 2022 and 31 December 2021. Foreign currency amounts were translated in each case at the closing rate on the reporting date. It is not expected that the cash flows from the financial liabilities included in the maturity analysis could occur much earlier or that the amounts could differ significantly.

2022 in EUR thousand	Carrying amount	Contractual cash flows			Total
		Less than 1 year	Between 1 and 5 years	More than 5 years	
Liabilities to banks and other financial liabilities	417	216	212	0	428
Lease liabilities	39,185	9,063	22,914	9,971	41,948
Trade accounts payable	16,258	16,258	0	0	16,258
Other liabilities	8,735	4,496	4,241	0	8,738
Non-derivative liabilities	64,595	30,033	27,367	9,971	67,372
Derivative financial instruments	1,591	21,305	0	0	21,305
Derivative financial liabilities	1,591	21,305	0	0	21,305
Total	66,186	51,338	27,367	9,971	88,676

2021 in EUR thousand	Carrying amount	Contractual cash flows			Total
		Less than 1 year	Between 1 and 5 years	More than 5 years	
Liabilities to banks and other financial liabilities	4,905	1,145	3,880	0	5,025
Lease liabilities	37,579	8,072	20,296	10,109	38,477
Trade accounts payable	13,422	13,238	184	0	13,422
Other liabilities	4,292	1,878	2,414	0	4,292
Non-derivative liabilities	60,198	24,333	26,774	10,109	61,216
Derivative financial instruments	1,562	34,812	0	0	34,812
Derivative financial liabilities	1,562	34,812	0	0	34,812
Total	61,760	59,145	26,774	10,109	96,028

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 (2022: EUR 76,990 thousand; 2021: EUR 69,435 thousand), contract assets (2022: EUR 50,475 thousand; 2021: EUR 38,353 thousand), other financial assets (2022: EUR 2,759 thousand; 2021: EUR 672 thousand), time deposits (2022: EUR 10,000 thousand; 2021: EUR 2,199 thousand), and cash and cash equivalents (2022: EUR 81,380 thousand; 2021: EUR 103,798 thousand).

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

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

The measures used in the past to assess creditworthiness did not have to be tightened as a result of the COVID-19 pandemic.

The risk of default by customers is reduced by mandatory credit assessments and measures to secure payment. For information on the measurement of any impairment losses based on the expected credit losses model, see Note 22. Trade accounts receivable and Note 23 Contract assets.

The estimated loss allowances for cash and cash equivalents were measured on the basis of the expected 12-month credit losses and reflect their maturities. Based on the external ratings of the banks and financial institutions used, the Frequentis Group estimates that there is a low default risk in respect of its cash and cash equivalents.

Apart from investments and deposits totalling EUR 14,769 thousand (31 December 2021: EUR 15,499 thousand) at one bank, there is no significant concentration or material credit risk in respect of individual banks, customers, contractual partners or individual financial instruments. In response to the insolvency of Commerzialbank Mattersburg in 2020, counterparty risk management has been extended by defining core banks. Every core bank must be system-relevant and a bank-specific limit has been set for the entire banking relationship, based on the bank's credit rating.

Interest rate risk

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

The bank deposits included in cash and cash equivalents amount to EUR 81,380 thousand (31 December 2021: EUR 103,798 thousand) and bear interest at variable rates or are not interest-bearing. A reduction in interest rates would not result in any significant change because the majority of the deposits with banks do not bear interest and a reduction would not result in negative interest. In the reporting period, negative interest of EUR 147 thousand (2021: EUR 155 thousand) was paid. This is recognised in other operating expenses. An increase in interest rates of one percentage point would increase interest income by EUR 814 thousand (2021: EUR 1,038 thousand).

As in the previous year, within financial liabilities, the non-current liabilities to banks and other non-current financial liabilities and lease liabilities bear interest at fixed rates.

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

Exchange rate risk

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

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

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

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

2022	Measured at fair value			Measured at amortised cost		Total carrying amount
	Hedge accounting	Mandatory recognition at fair value through profit or loss	Equity instrument – at fair value through profit or loss	Financial assets	Other financial liabilities	
Financial assets						
Equity instruments			0			0
Time deposits				10,000		10,000
Trade accounts receivable				76,990		76,990
Derivative financial instruments	3	658				661
Other current and non-current assets				2,983		2,983
Cash and cash equivalents				81,380		81,380
Total	3	658		171,353		172,014
Financial liabilities						
Liabilities to banks and other financial liabilities					417	417
Trade accounts payable					16,258	16,258
Lease liabilities					39,185	39,185
Derivative financial instruments	273	1,318				1,591
Other liabilities		6,298			2,437	8,735
Total	273	7,616			58,297	66,186

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

Fair value

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

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

The earn-out liabilities relating to the acquisition of ATRiCS Advanced Traffic Solutions GmbH and Regola S.r.l. are measured at fair value and allocated to the category at fair value through profit or loss. The fair value is allocated to level 3 in the fair value hierarchy.

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

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

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

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

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

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

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

2022	Derivative financial instruments	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				209	-738
Valuation	122				
Impairment losses pursuant to IFRS 9				-313	
Exchange rate gains/losses				-950	-187
Disposal gains/losses					
Net gains/losses recognised in profit or loss	122	0	0	-1,054	-925
Net gains/losses recognised in other comprehensive income	297				
Net gains/losses	419	0	0	-1,054	-925

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

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

Derivative financial instruments

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

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

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

The Frequentis Group aims to manage and monitor the foreign currency risks for future payments under contracts with customers on a rolling basis throughout the entire project period through hedging with forward exchange contracts at the date of order intake (cash flow hedges). The hedging instruments (forwards, swaps) are concluded for a year and extended annually in the amount of the cash flows still expected (extension at historical rates). Payments from the hedged cash flows are expected to occur in the years 2023 to 2027.

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.

In 2021 and 2022, there was no reduction in forecast underlying transactions due to either the COVID-19 pandemic or the war in Ukraine.

The carrying amount of derivative financial instruments corresponds to their current fair value, whereby the fair value was determined from the current market value based on the closing exchange rate for the foreign currency as at 31 December 2022, verified by corresponding bank confirmations.

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

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

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

For the carrying amount of the cash flow hedge and the carrying amount of the MTM valuation, a positive fair value of EUR 661 thousand was recognised in other receivables in 2022 (2021: EUR 92 thousand), while a negative fair value of EUR 1,591 thousand was recognised in other liabilities (2021: EUR 1,562 thousand). When the hedged item (revenue) is realised, the amount relating to the hedging transaction recognised in other comprehensive income is reclassified to revenues. The amount reclassified to revenues is shown in the development of the cash flow hedge reserve presented in the next table.

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

Ineffectiveness may arise if there is a significant discrepancy between the credit risk of the trading partner and that of the Frequentis Group. In addition, a reduction in the hedged revenues can result in over-hedging in the short term, resulting in ineffectiveness. There was no ineffectiveness in 2022 or 2021.

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

	2022 EUR thousand	2021 EUR thousand
As at 31 December of the previous year	-346	-123
Result from changes in fair value	194	-300
Deferred taxes on this amount	-46	75
Reclassification to the income statement	103	3
Deferred taxes on this amount	-25	-1
Adjustments due to changes in tax rates	-5	0
As at 31 December of the financial year	-125	-346

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 599 thousand and the fair value of the MTM valuation by EUR 4,384 thousand, while a 10% reduction in exchange rates would have reduced the fair value of the cash flow hedge by EUR 738 thousand and the fair value of the MTM valuation by EUR 5,433 thousand.

36. Leases

Frequentis as lessee

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

The leases for buildings are concluded either for a defined period or for an indefinite period with short termination periods for the lessee and lessor. Where office premises are leased for small subsidiaries, they are classified as short-term leases because termination does not result in any penalties and new premises are readily available. The lease for the office building used as the company's headquarters cannot be terminated until 2026. As at 31 December 2021, it was assumed that the lease would be extended to 2029. This was reviewed as at 31 December 2022 and the period was adjusted to 2030. As a result, the right-of-use asset increased by EUR 1,763 thousand.

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

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

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

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

2022	Right-of-use assets for land and buildings EUR thousand	Right-of-use assets for machinery EUR thousand	Right-of-use assets for other plant, factory and office equipment EUR thousand	Total EUR thousand
Acquisition cost				
As at 1 January 2022	57,028	587	3,444	61,059
Foreign currency translation	164	0	1	165
Changes in reporting entities	347	0	35	382
Addition	8,835	0	1,240	10,075
Disposal	-551	0	-294	- 845
As at 31 December 2022	65,823	587	4,426	70,836
Accumulated depreciation				
As at 1 January 2022	-21,839	-115	-1,735	-23,689
Foreign currency translation	-2	0	2	0
Changes in reporting entities	-123	0	-22	-145
Addition	-8,082	-96	-888	-9,066
Disposal	446	0	265	711
As at 31 December 2022	-29,600	- 211	-2,378	-32,189
Carrying amount				
As at 31 December 2022	36,223	376	2,048	38,647
2021				
	Right-of-use assets for land and buildings EUR thousand	Right-of-use assets for machinery EUR thousand	Right-of-use assets for other plant, factory and office equipment EUR thousand	Total EUR thousand
Acquisition cost				
As at 1 January 2021	49,363	587	2,707	52,657
Foreign currency translation	499	0	10	509
Changes in reporting entities	2,670	0	198	2,868
Addition	5,003	0	850	5,853
Disposal	-507	0	-321	- 828
As at 31 December 2021	57,028	587	3,444	61,059
Accumulated depreciation				
As at 1 January 2021	-12,775	-19	-1,112	-13,906
Foreign currency translation	-231	0	-5	-236
Changes in reporting entities	-2,004	0	-113	-2,117
Addition	-7,336	-96	-799	-8,231
Disposal	507	0	294	801
As at 31 December 2021	-21,839	- 115	-1,735	-23,689
Carrying amount				
As at 31 December 2021	35,189	472	1,709	37,370

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

The lease liabilities changed from EUR 37,579 thousand (comprising EUR 29,785 thousand non-current and EUR 7,794 thousand current) as at 1 January 2022 to EUR 39,185 thousand (comprising EUR 30,763 thousand non-current and EUR 8,422 thousand current) as at 31 December 2022.

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

	2022 EUR thousand	2021 EUR thousand
Depreciation of right-of-use assets	9,066	8,231
Interest expense for lease obligations	412	215
Lease payments for short-term leases	614	540
Lease payments for low-value assets	64	33
Total	10,156	9,019

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

	2022 EUR thousand	2021 EUR thousand
Payments of principal on lease liabilities	8,686	8,228
Interest paid on lease liabilities	412	215
Lease payments for short-term leases and low-value assets	678	573
	9,776	9,016

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

During 2022, the Frequentis Group concluded several leases that start in 2023. However, these are insignificant leases for vehicles and the rental of buildings.

Frequentis as lessor

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

Due dates of future payments from operating leases:

	31 Dec. 2022 EUR thousand	31 Dec. 2021 EUR thousand
Due in one year	1,731	9
Due in two years	1,457	0
Due in three years	11	0
Due in four years	0	0
Due in five years	0	0
Due in more than five years	0	0
	3,199	9

EUR 182 thousand (2021: EUR 50 thousand) was recognised in other operating income in the income statement.

37. Information on business relations with related parties

Parent company

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

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

	2022 EUR thousand	2021 EUR thousand
Goods and services supplied and other income	19	24
Goods and services received and other expenses (consulting services)	590	558
Receivables outstanding as at 31 December	2	1
Liabilities outstanding as at 31 December	0	0

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

Associated companies

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

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

	2022 EUR thousand	2021 EUR thousand
Goods and services supplied and other income	1,084	453
Goods and services received and other expenses	2,813	2,305
Receivables outstanding as at 31 December	192	11
Liabilities outstanding as at 31 December	419	38
Advances from customers as of 31 December	588	0

Related companies

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

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

	2022 EUR thousand	2021 EUR thousand
Expenses for consulting services	283	488
Expenses for project support services	220	338
Expenses for software development and engineering	1,856	464
Rental payments (principal and interest) and operating costs	3,954	3,801
Interest expense for loans received	1	
Revenues	1,897	18
Receivables as at December 31	1,068	0
Payables as at December 31	105	104
Loans received as at Dec. 31	30	30

The expenses for software development and engineering also contain EUR 467 thousand relating to companies that would not be not classified as related parties under IAS 24. The associated liabilities are EUR 46 thousand.

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

Austrian Research Promotion Agency (Österreichische Forschungsförderungsgesellschaft/FFG): Johannes Bardach is a member of the Supervisory Board of FFG. FFG's core business is granting subsidies and loans for research purposes. To ensure the necessary strategic focus of the Supervisory Board, in accordance with the FFG law, representatives of companies that receive funding from FFG are nominated as members of the Supervisory Board.

In the reporting period, advance payments for future research revenues in the amount of EUR 188 thousand (2021: EUR 144 thousand) were disbursed by FFG. Funding received from FFG in the reporting period totalled EUR 502 thousand (2021: EUR 237 thousand). EUR 210 thousand of this amount (2021: EUR 63 thousand) is presented in other receivables. In the reporting period, FFG disbursed a loan of EUR 284 thousand with a term of five years in connection with a research project.

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

Related persons

Executive Board

In the reporting period, the Executive Board comprised:

- Norbert Haslacher, Chairman
- Hermann Mattanovich
- Peter Skerlan

The total remuneration paid to the Executive Board (excluding payroll-related costs) was EUR 2,368 thousand in the reporting period (2021: EUR 2,737 thousand). The remuneration of the Executive board comprised fixed components (annual base salary, premiums for pension reinsurance, and benefits in kind) and variable components (short-term variable remuneration and long-term incentive plans [LTIP]). The short-term variable components are linked to the achievement of financial targets for the company and individual targets.

Frequentis AG agreed long-term incentive plans with the Chairman of the Executive Board, Mr. Norbert Haslacher, in 2019, 2020, 2021, and 2022 (LTIP 2019, LTIP 2020, LTIP 2021, and LTIP 2022). For further information, see Note 28. Share-based payment.

The members of the Executive Board have been granted pension benefits. In addition to the post-retirement payments, these include pension benefits for surviving dependants after the death of the beneficiary. The post-retirement benefits are generally paid when the beneficiary reaches a specific age, provided that the employment contract has ended at this date. Expenses of EUR 383 thousand were incurred in the reporting period (2021: EUR 391 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 167 thousand (2021: EUR 159 thousand), interest cost of EUR 42 thousand (2021: EUR 32 thousand), and pension insurance expense of EUR 175 thousand (2021: EUR 200 thousand).

In the event of termination of employment, severance payments are due in accordance with the legal regulations in Austria and contractual agreements. Reversal of the corresponding provisions for severance payments amounted to EUR 62 thousand in the reporting period (2021: additions of EUR 259 thousand).

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

Supervisory Board

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

The remuneration of the Supervisory Board amounted to EUR 167 thousand in the reporting period (2021: EUR 148 thousand).

An office and support services are provided free of charge for the Chairman of the Supervisory Board, Mr. Johannes Bardach, for the performance of his function as Chairman of the Supervisory Board. EUR 73 thousand (2021: EUR 52 thousand) was invoiced for office and support services that do not relate to the performance of his function as Chairman of the Supervisory Board of Frequentis. As at 31 December 2022, there was an outstanding receivable of EUR 0.3 thousand for this (2021: EUR 4 thousand).

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

38. Significant events after the reporting date

Monika Haselbacher was appointed as an additional member of the Executive Board with effect from 1 January 2023 for a term of five years (1 January 2023 to 31 December 2027). She strengthens the Executive Board of Frequentis AG in her role as Chief Operating Officer (COO).

With effect from 1 January 2023, the Executive Board comprises:

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

The interest in AIRNAV Technology Services Inc., which has its registered office in Iloilo, Philippines, was increased from 40% to 65% as at 20 February 2023. The purchase price of EUR 35 thousand was paid in 2022 and is recognised in the line item advance payments for non-current assets.

On 20 February 2023, an agreement was signed to acquire 76.67% of the shares in FRAFOS GmbH, which has its registered office in Berlin, Germany. The shares were acquired by BlueCall Systems GmbH, a wholly owned subsidiary of Frequentis AG. Closing of this transaction is contingent upon the approval of Germany's Federal Ministry for Economic Affairs and Climate Action.

The purchase price for the shares in this company comprises a basic purchase price of EUR 2,300 thousand, a possible increase in the purchase price of EUR 465 thousand (depending on the receipt of certain outstanding receivables), and a variable performance-related earn-out component.

39. Additional information

The Frequentis Group had an average of 2,081 employees in 2022 (2021: 1,937 employees). For the first time, the number of employees is presented as full-time equivalents; the figures for 2021 have been adjusted accordingly.

Audit fees

In the reporting period, audit expenses of EUR 133 thousand (2021: EUR 127 thousand) were incurred for the audit of the consolidated financial statements and the annual financial statements of Frequentis AG, expenses of EUR 71 thousand (2021: EUR 45 thousand) were incurred for other consulting services, and expenses of EUR 23 thousand (2021: EUR 17 thousand) were incurred for other services.

40. Capital management

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

	2022	2021
EBIT margin (based on revenues)	6.5%	8.7%
Equity ratio	43.3%	41.1%
Net cash in EUR thousand	90,963	101,093

The Frequentis Group calculates EBIT as follows:

	2022 EUR thousand	2021 EUR thousand
Profit/loss before tax	24,737	27,925
Financial income	-209	-79
Financial expenses	738	607
Net change in impairment losses on financial assets	0	857
Earnings from investments accounted for at equity	-275	-342
EBIT	24,991	28,968

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.

41. Risk management

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

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

Vienna, 13 March 2023

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, 2022, 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, 2022 and its financial performance for the year then ended in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU and with requirements stated in par. 245a UGB.

Basis for opinion

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

Key audit matters

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

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

- 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 from delivery projects are recorded in accordance with IFRS 15 based on the stage of completion applying the cost-to-cost method. Contractual claims arising from these projects are reported as contract assets from contracts with customers and outstanding obligations as contract liabilities from contracts with customers. In case that a project loss is expected from a further execution of a project, including maintenance contracts, that loss will be immediately recognised in the income statement.

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

Information on the accounting of the project business can be found in chapter 2 of the notes under the accounting and valuation policy "IFRS 15 Revenue from Contracts with Customers" as well as "Significant estimates and use of judgment". Further information can be found in chapter 4 "Revenues" within the notes on the consolidated income statement and in chapter 23 "Contract assets from contracts with customers" and chapter 31 "Contract liabilities from contracts with customers".

Audit response:

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

Based on the results of the control tests, we have performed a more in-depth analysis for a sample of projects under special assessment of the discretionary decisions made. We have selected our samples considering various risk-oriented parameters, e.g. size, margin, start and duration of the project. In addition, we considered the fact of significant adjustments to the assessment compared to previous year for our determination of the sample. The audit procedures performed on the selected sample included, in particular, the review of the underlying contracts and agreements, discussions with the commercial and operating project managers concerning their estimates and assumptions, including the impact of inflation-related economic effects. We performed an analysis of current project data as well as the reconciliation of assumptions and estimates with contracts and further documents. In addition, we have examined the recording of costs on the projects and the determination of the stage of completion. Finally, we have assessed whether the presentation of the project business in the consolidated financial statement as well as the disclosures in the notes are in accordance with the requirements of IFRS 15.

Other information

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

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

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

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

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

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

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

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

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

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

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the EU regulation and in accordance with Austrian Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

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

We also:

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

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

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

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

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

Comments on the management report for the Group

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

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

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

Opinion

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

Statement

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

Additional information in accordance with article 10 of the EU regulation

We were elected as auditor by the ordinary general meeting at June 2, 2022. We were appointed by the Supervisory Board on September 19, 2022. We are auditors without cease since 2018.

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

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

Responsible Austrian certified public accountant

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

Vienna, 13 March 2023



BDO Assurance GmbH

Wirtschaftsprüfungs- und Steuerberatungsgesellschaft

(as universal successor to BDO Austria GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft)

Mag. Gerhard Posautz
Auditor

Mag. Gerhard Fremgen
Auditor

Statement by all legal representatives

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

Vienna, 13 March 2023



Norbert Haslacher
Chairman
of the Executive Board



Monika Haselbacher
Member
of the Executive Board



Hermann Mattanovich
Member
of the Executive Board



Peter Skerlan
Member
of the Executive Board

Glossary

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

Glossary of technical terms relating to Frequentis' business

Term	Explanation
3GPP	3 rd Generation Partnership Project Worldwide cooperation of standards organisations which develop protocols for mobile telecommunications
5G	5 th Generation technology standard for broadband cellular networks
AFTN	Aeronautical Fixed Telecommunication Network Data communication network for aviation
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
ATC	Air Traffic Control
ATCA	Air Traffic Control Association Independent, non-profit organisation with the objectives of promoting, maintaining, and enhancing the stature and well-being of the Air Traffic Control profession and the aviation community
ATM	Air Traffic Management <ul style="list-style-type: none"> • 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 Air Traffic Management Civil, Aeronautical Information Management, and Defence business domains
BCHÖ	B&C Holding Österreich GmbH
BVCS	Bypass Voice Communication System Back-up communication system
CAD	Computer Aided Dispatch An IT system that supports the work of control centre operators
CANSO	Civil Air Navigation Services Organisation International organisation which represents the interests of air navigation service providers
CERT	Computer Emergency Response Team A group of IT security experts that issues warnings about information security vulnerabilities and offers recommendations for mitigating the associated risks, also in the event of specific IT security incidents

EAD	<p>European AIS (Aeronautical Information Services) Database</p> <p>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”</p>
EASA	European Union Aviation Safety Agency
ESD	<p>ElectroStatic Discharge</p> <p>A sudden flow of electricity between two electrically charged objects</p>
ETSI	<p>European Telecommunications Standards Institute</p> <p>An independent, not-for-profit, standardisation organisation in the field of information and communications, which supports the development and testing of global technical standards for systems, applications, and services</p>
EUROCAE	<p>European Organisation for Civil Aviation Equipment</p> <p>EUROCAE is a not-for-profit organisation that deals with the standardisation of electronics for aviation</p>
FIRST	<p>Forum of Incident Response and Security Teams</p> <p>Global association of CERTs and IT security professionals</p>
GMDSS	<p>Global Maritime Distress and Safety System</p> <p>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</p>
GSM-R	<p>GSM for Railways; Global System for Mobile Communications</p> <p>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</p>
IBB	<p>Installed Base Business</p> <p>Follow-up business to installed systems and solutions</p>
ICAO	<p>International Civil Aviation Organization</p> <p>ICAO is a UN specialised agency based in Montreal, Canada. Its aim is to foster sustained growth in the global civil aviation system</p>
ISSS	<p>International System Safety Society</p> <p>A not-for-profit organisation that supports safety professionals worldwide with the focus on the application of systems engineering and systems management in hazard, safety, and risk analysis</p>
LTE	<p>Long Term Evolution</p> <p>A broadband standard for mobile communications</p>
MCPTT	<p>Mission Critical Push-To-Talk</p> <p>Push-to-talk functionality that meets the requirements of secure, mission-critical voice communication, based on a arbitrated method where two or more users can communicate with each other</p>
MCS / MCX	<p>Mission Critical Services</p> <p>3GPP MCS is an application layer standard for 4G/5G communication networks that ensures secure availability of mission-critical services. It is often referred to as MCX, with X representing voice, data, and/or video (mission-critical PTT, mission-critical data, and mission-critical video).</p>
P25	Standards for interoperable digital two-way radio products; used in Public Safety
PEFC	<p>Programme for the Endorsement of Forest Certification Schemes</p> <p>Seal for sustainable forest management for the recognition of forest certification programmes</p>

PST	Public Safety & Transport Name of the Frequentis business segment comprising the Public Safety, Public Transport (i.e. railways) and Maritime business domains
SaaS	Software as a Service A software licensing and delivery model – considered to be part of cloud computing – in which software is licensed on a subscription basis and is hosted centrally
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
SIRT	Security Incident Response Team Coordinating entity for the assessment of information security vulnerabilities, risk mitigation, and information security incident management
TETRA	TErrestrial Trunked RAdio Open standard for digital trunked radio which enables the setup of universal networks
TETRAPol	Tetrapol is a digital trunked radio system for voice and data transmission tailored to professional radio systems of authorities and organisations with mission-critical tasks.
UTM	Uncrewed aircraft system Traffic Management An air traffic management system for remotely and autonomously controlled operations of uncrewed aerial systems
VoIP	Voice over Internet Protocol Transmission of voice communication over an IP network
VCS	Voice Communication System

Glossary of financial and commercial terms

Term	Explanation
AktG	Aktiengesetz Austrian Companies Act
ArbVG	Arbeitsverfassungsgesetz Austrian Labour Relations Act
C rules	Principles 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
CAPEX / CapEx	Capital expenditure Funds that are used by a company for the purchase, improvement, or maintenance of long-term assets
CGU	Cash Generating Unit
CPI	Corruption Perception Index
CSR	Corporate Social Responsibility
EBIT	Earnings Before Interest and Taxes
EBIT margin	EBIT as a percentage of revenues
EBITDA	Earnings Before Interest, Taxes, Depreciation, Amortisation, and impairment losses

ECL	Expected credit losses
Equity ratio	Equity/total equity and liabilities
ERP	Enterprise Resource Planning Software solution
ESD	ElectroStatic Discharge Voltage breakdowns caused by large potential differences - e.g. due to frictional electricity.
ESG	Environment, Social, and (corporate) Governance An orientation towards environment, social and governance aspects; concepts are developed for each of these dimensions and verifiable criteria are defined
FFG	Österreichische Forschungsförderungsgesellschaft mbH Austrian Research Promotion Agency; national funding agency for industrial research and development in Austria
FN	Commercial register number, unique identifier of a legal entity in Austria
FQT	Ticker symbol of the shares of Frequentis AG
FTE	Full-Time Equivalent
FVOCI	Fair Value through Other Comprehensive Income Classification and measurement category for financial assets; changes in the fair value are recognised in other comprehensive income (i.e., outside of profit and loss)
FVTPL	Fair Value Through Profit and Loss Classification and measurement category for financial assets; changes in the fair value are recognised in profit or loss
GHG	GreenHouse Gases
GRI	Global Reporting Initiative An international independent standards organisation that helps communicate impacts on issues such as climate change, human rights and corruption; GRI's framework for sustainability reporting helps companies identify, gather, and report this information in a clear and comparable manner
IAS	International Accounting Standards
ICS	Internal Control System
IFRIC	International Financial Reporting Interpretations Committee
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change The United Nations body for assessing the science related to climate change
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/Programme
M&A	Mergers & Acquisitions
MTM	Mark-To-Market Accounting method where the value of an asset or liability is based on the current market price

NaDiVeG	Nachhaltigkeits- und Diversitätsverbesserungsgesetz Austrian Sustainability and Diversity Improvement Act
ÖCGK	Österreichischer Corporate Governance Kodex Austrian Code of Corporate Governance
OCI	Other Comprehensive Income
R rules	Recommendations of the Austrian Code of Corporate Governance
SDGs	Sustainable Development Goals United Nations (UN) objectives for sustainable economic, social, and environmental development
Shareholders' equity	Funds made available to the company by its owners through cash or contributions in kind, plus retained earnings
TSR	Total Shareholder Return
UGB	Austrian Commercial Code
WACC	Weighted Average Cost of Capital
WKN	Wertpapier-Kennnummer / Securities identification number A six-digit combination of numbers and letters used in Germany to identify securities
XETRA	A share trading platform operated by the Frankfurt Stock Exchange



Financial Calendar 2023

12.04.2023	Annual financial statements 2022
22.05.2023	Record date for General Meeting
01.06.2023	Annual General Meeting, Vienna
05.06.2023	Ex-dividend day
06.06.2023	Record date for dividend
07.06.2023	Dividend payment day
16.08.2023	Half-year financial report 2023

<http://www.frequentis.com/ir> > Financial Calendar

Notes / Disclaimer

The terms "Frequentis" and "Frequentis Group" in this publication refer to the Group; "Frequentis AG" is used to refer to the parent company.

Minimal arithmetical differences may arise from the application of commercial rounding to individual items and percentages.

The forecasts, plans, and forward-looking statements contained in this publication are based on the knowledge and information available and the assessments made at the time that this publication was prepared. As is true of all forward-looking statements, these statements are subject to risk and uncertainties. As a result, actual events may deviate significantly from these expectations. No liability whatsoever is assumed for the accuracy of projections or for the achievement of planned targets or for any other forward-looking statements.

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