

FREQUENTIS

FOR A SAFER WORLD

Annual Report 2021

Contributing – Collaborating – Leading

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



ICAO



Key figures Frequentis Group

All figures in EUR million, except where otherwise stated.

Earnings	2021	2020	+/- in %	+/- in EUR million	2019 ¹⁾	2018	2017
Revenues	333.5	299.4	+11.4%	+34.2	303.6	285.8	266.9
EBITDA	46.5	41.9	+10.9%	+4.6	30.2	21.6	20.0
EBITDA margin	13.9%	14.0%	-0.1 pp	-	9.9%	7.6%	7.5%
EBIT	29.0	26.8	+8.1%	+2.2	17.2	15.6	14.3
EBIT margin	8.7%	9.0%	-0.3 pp	-	5.7%	5.5%	5.4%
Profit/loss for the period	20.8	-3.4	-	+24.2	12.5	11.8	10.7
Earnings per share in EUR	1.50	-0.30	-	-	0.93	0.94	0.82
Orders	2021	2020	+/- in %	+/- in EUR million	2019 ¹⁾	2018	2017
Order intake	333.2	314.6	+5.9%	+18.6	333.7	306.3	287.8
Orders on hand (at year-end)	467.9	427.6	+9.4%	+40.3	391.5	355.2	335.3
Statement of financial position	2021	2020	+/- in %	+/- in EUR million	2019 ¹⁾	2018	2017
Total assets	315.7	277.6	+13.7%	+38.1	272.1	198.0	194.6
Shareholders' equity	129.9	111.4 ²⁾	+16.5%	+18.4	116.2	85.6	90.1
Equity ratio	41.1%	40.1% ²⁾	+1.0 pp	-	42.7%	43.3%	46.3%
Net cash	101.1	85.0	+18.9%	+16.0	77.8	55.4	70.0
No. of employees (average)	2,157	1,907	+13.1%	-	1,849	1,763	1,697
Cash flow statement	2021	2020	+/- in %	+/- in EUR million	2019 ¹⁾	2018	2017
Cash flow from operating activities	48.8	54.8	-11.0%	-6.0	17.7	4.6	16.7
Cash flow from investing activities	-24.6	-7.0	+251.0%	-17.6	-4.6	-4.4	-4.4
Cash flow from financing activities	-12.6	-10.1	+25.0%	-2.5	8.0	-14.2	-3.7
Cash and cash equivalents at end of period	103.8	91.3	+13.7%	+12.5	66.9	45.5	77.7

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

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

²⁾Comparative figures for 2020 restated.

2021 at a glance

Revenues in EUR million



333.5

+11.4%

EBITDA in EUR million



46.5

+10.9%

EBIT in EUR million



29.0

+8.1%

Net cash in EUR million



101.1

+18.9%

Order intake in EUR million



333.2

+5.9%

Orders on hand in EUR million



467.9

+9.4%

Dividende per share



EUR 0.20

Average no. of employees



2,157

Equity ratio



41.1%

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Preface

Ladies and gentlemen,

Thanks to our consistently resilient business model, we were able to steer the Frequentis Group well through the second year of the global COVID-19 pandemic. The extensive trust placed in us by our customers enabled us to complete many projects despite lockdowns and travel restrictions. As well as growing our established business, we extended our product portfolio in the Air Traffic Management segment by acquiring business units from L3Harris Technologies, Inc. (L3Harris) in Australia, Germany, and Canada.

Highlights

Given the restrictions resulting from the pandemic, we are satisfied with our operating performance in 2021. The L3Harris transaction is included in the following figures on a pro rata basis:

- Order intake increased by 5.9% to EUR 333.2 million (2020: EUR 314.6 million)
- At year-end 2021, orders on hand were 9.4% higher at EUR 467.9 million (2020: EUR 427.6 million)
- Revenues rose by 11.4% to EUR 333.5 million (2020: EUR 299.4 million)
- EBITDA grew by 10.9% to EUR 46.5 million (2020: EUR 41.9 million)
- EBIT increased by 8.1% to EUR 29.0 million (2020: EUR 26.8 million)
- The profit for the period improved significantly to EUR 20.8 million (2020: loss of EUR 3.4 million)
- The equity ratio rose to 41.1% (2020: 40.1%)
- Net cash increased to EUR 101.1 million (2020: EUR 85.0 million).

Continued growth

Many of the measures already implemented were retained in the second year of the pandemic and new measures were introduced to protect our employees worldwide and guide the Frequentis Group optimally through the pandemic. That proved very successful in 2021. At year-end 2021, orders on hand amounted to EUR 467.9 million, an increase of 9.4% compared with year-end 2020. Thanks to the good order situation, capacity utilisation at Frequentis was and remains good. Revenues grew by 11.4% to EUR 333.5 million, partly due to the L3Harris transaction.

The good business performance of the companies acquired from L3Harris in 2021 and the profitable project business enabled Frequentis to report a respectable earnings performance despite the restrictions on travel. EBITDA improved to EUR 46.5 million and EBIT rose to EUR 29.0 million. The EBIT margin for 2021 (based on revenues) was 8.7%, which was slightly below the prior-year margin of 9.0%.

Now for a brief look at our solid financial position: The equity ratio increased by one percentage point to 41.1% at year-end 2021 and the net cash position improved to EUR 101.1 million. In view of the very good operating performance, at the Annual General Meeting we will be proposing that the dividend should be increased by a third to EUR 0.20 per share.

Acquisitions

The acquisition of business units of the listed US company L3Harris comprised voice communication product lines for civil and military air traffic control. In addition, our product portfolio now also includes software and cloud solutions for air traffic synchronisation for en-route, approach, and airport ATC centres. The air traffic synchronisation solutions marketed by the German company Frequentis Orthogon are designed, among other things, to reduce air traffic emissions. We are delighted that one of Orthogon's systems, the Arrival Manager (AMAN), was selected by a jury of industrial experts to receive the Sustainability Award at the World ATM Congress 2021 in Madrid.

The Australian company C4i extends the Frequentis portfolio for military air traffic control and strengthens our product range in the very important Australian, US, and UK markets for encrypted and non-encrypted, cybersecure communications. Frequentis is the market leader in communications systems for military air traffic management. Together with C4i, our goal now is to secure a dominant global position in the defence command & control market as well.

As a result of the rapid closing of the L3Harris transaction, the business units contributed revenues of around EUR 19 million in 2021. In 2022, the transaction is expected to contribute additional revenues of about EUR 10 million. We also concluded a cooperation agreement with L3Harris. As a technology partner, the plan is that we will provide voice communication systems for use in L3Harris' large-scale solutions and service business.

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 teams in the area of public safety. Regola's command and control system complements the Public Safety portfolio. The aim is to step up international marketing.

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

Business model

Frequentis has a stable and resilient business model that is also able to withstand crises. Since we supply communication and information systems 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, and shipping. 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 hardware into customers' existing IT landscapes, we expect Frequentis' 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, this will take several years or even longer in some markets. Research and development is aligned to this transformation.

Sustainability

Looking ahead to the future, our goal is to continually improve all aspects of our environmental, social, and governance (ESG) performance. This is guided by the focus areas derived from the materiality analysis conducted in 2021, which form the basis for further concepts and their stepwise implementation, including deriving corresponding key performance indicators. In reference to the GRI (Global Reporting Initiative) Standards, we are working to enhance the quality of our sustainability reporting to offer all stakeholders a transparent and objective overview of the Frequentis Group and the sustainability measures we implement. An ESG organisation was set up at the end of 2021 so that we can make optimum use of the resulting opportunities for Frequentis' future development.

Innovations

We are proud to be an innovation leader in our markets, which enables us to play a part in shaping the industry. Our focus here is on UTM/drone management and mission-critical communication via 5G/LTE. 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.

Expenses for company-financed research and development work that was not ordered by customers amounted to EUR 15.0 million in 2021 (2020: EUR 12.8 million) and are expected to be higher in 2022.

Forecast for 2022

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

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

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

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

Trust in Frequentis

Our customers, partners, investors, and more than 2,150 employees continue to place their trust in Frequentis' business model. We would like to thank everyone connected with Frequentis for their excellent collaboration. Together we will shape a safer future.

Vienna, 14 March 2022

Best regards,



Norbert Haslacher
Chairman of the
Executive Board



Peter Skerlan
Member of the
Executive Board



Hermann Mattanovich
Member of the
Executive Board



Report of the Supervisory Board

Worldwide, 2021 was another year overshadowed by the COVID-19 pandemic. Nevertheless, demand for Frequentis products and solutions did not deteriorate thanks to the company's stable business model as a provider of communication and information solutions for the safety-critical sector. The Group therefore successfully continued to grow in 2021 by pressing ahead with digital solutions for customer projects.

An important milestone in Frequentis' growth was the acquisition of civil and military ATM voice communications and air traffic optimisation product lines of the US group L3Harris Technologies, Inc., which was completed in 2021. These units contributed EUR 19 million to the Frequentis Group's revenues in the reporting period.

Overall, revenues in the Frequentis Group increased by 11.4% year-on-year to EUR 333.5 million, despite the ongoing impact of the COVID-19 pandemic. Group EBIT rose to EUR 29 million, which was 8.2% higher than in the previous year. With net cash of EUR 101 million at year-end 2021, Frequentis still has a very solid financial base and is well-prepared for future development.

Changes on the Executive Board and Supervisory Board

Mrs. Sylvia Bardach, who had been CFO of Frequentis AG since 2007, stepped down from the Executive Board on 15 April 2021 as part of a long-term succession plan. She had held a variety of management roles at Frequentis over a period of more than 30 years and made a significant contribution to the Group's international growth and business success. Mr. Peter Skerlan was appointed to the Executive Board as CFO with effect from 16 April 2021. He joined the Frequentis Group in 1999 and was Vice President Finance with overall responsibility for financial performance and processes in the Frequentis Group from 2006.

At the 14th Annual General Meeting of Frequentis AG on 20 May 2021, the number of shareholder representatives on the Supervisory Board was increased from five to six, and Mrs. Sylvia Bardach was elected to the company's Supervisory Board for the maximum term permitted by law.

Work of the Supervisory Board and its committees

In 2021, 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 ordinary meetings in 2021. At these meetings, the Supervisory Board received detailed reports from the Executive Board on the company's 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 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 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 issues and necessary preparations in connection with the change on the Executive Board in April 2021. Furthermore, this committee discussed the remuneration report, which the company was required to prepare for the first time, and worked out a proposal for the long-term incentive plan 2021 (LTIP 2021) for the Chairman of the Executive Board. The remuneration report and the LTIP 2021 were subsequently adopted at the company's Annual General Meeting on 20 May 2021.

The special committee established in 2020 in the context of the insolvency of Commercialbank Mattersburg met once in the reporting period and advised the Executive Board on further action to assert possible claims by the company on the bank and third parties in connection with this case.

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

Financial statements of Frequentis AG and consolidated financial statements for 2021

The annual financial statements of Frequentis AG and the consolidated financial statements as at 31 December 2021 submitted by the Executive Board, as well as the management report for the company and the Group for the 2021 financial year were audited by the appointed auditors, BDO Austria 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. BDO also evaluated compliance with the C rules of the Austrian Corporate Governance Code. Neither the review of the consolidated non-financial report, nor the evaluation of corporate governance resulted in 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 the auditors at its meeting on 30 March 2022 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 2021 were accepted by the Supervisory Board, so they are deemed to be approved pursuant to Section 96 (4) of the Austrian Companies Act. The consolidated financial statements prepared in accordance with the International Financial Reporting Standards (IFRS), the management report, 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. At the Annual General Meeting on 2 June 2022, the Executive Board will therefore propose payment of a dividend of EUR 0.20 per share for the 2021 financial year.

On behalf of the 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 extremely 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 trust in these challenging times.

Vienna, 30 March 2022



Johannes Bardach
Chairman of the Supervisory Board of Frequentis AG



The Company



75 years of innovation – for a safer world

Wherever Frequentis' systems are used, people bear responsibility for the safety of other people and goods. For 75 years, this Frequentis has been developing and marketing communication and information systems for control centres in the safety-critical sector. In 2021, the Frequentis Group's global operations generated revenues of EUR 333.5 million and EBIT of EUR 29.0 million. Its products and solutions are marketed through two segments:

The Air Traffic Management segment (around 66% 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 (around 34% of revenues) comprises the following business domains:

- Police / fire brigades / emergency rescue services
- Railways and local public transport systems
- Shipping

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 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 40,000 working positions in air traffic control, public safety, railways/public transport, and the maritime sector. The knowledge and experience of around 2,150 employees worldwide (including about 1,000 at the company's headquarters in Vienna), together with a network of subsidiaries and local representatives in more than 50 countries, enable Frequentis to serve more than 500 customers in some 150 countries.

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

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 work-flows 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 sustainability in the management of the company.

Cross-sector solutions for control centres

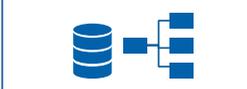
Control centre solutions are systems for command centres for safety-critical tasks as encountered daily by Frequentis on its customers' premises. Control centre solutions are used either to control traffic or to organise safety. The same tasks have to be carried out, although they are labelled differently in each field of 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 & data communication	Tactical situation tools	Planning & management tools	Safety-critical networks
 <p>Backbone of operational control Channelling information and transmitting to all relevant recipients.</p>	 <p>Displaying the current situation Objects to be controlled and the operational environment.</p>	 <p>Supporting decisions Basing decisions on the information available. Documenting the process.</p>	 <p>Ensuring seamless business continuity Brokering between safety-critical applications and non-specialised commercially available networks.</p>

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. Work on standardisation bodies such as ETSI and EUROCAE enables Frequentis to base its solutions on 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.

Subsidiaries and associated companies

The parent company of the Frequentis Group is Frequentis AG, which is based in Vienna, Austria. The main business activities and strategic corporate functions are bundled at the parent company.

The companies listed in Regional Sales & Operations bear the main responsibility for building and extending Frequentis' global presence and regional value-added. They are responsible for the region allocated to them. Software product companies are the companies whose products significantly extend the Frequentis portfolio. Software development companies are companies that provide internal development services.

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

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

- the acquisition of 100% of the shares in Harris Orthogon GmbH, Bremen, Germany (closing 30 April 2021, now Frequentis Orthogon GmbH),
- the assumption of a customer contract between L3Harris and the British air navigation service provider NATS (contract transferred on 28 May 2021),

- the acquisition of the Harris ATC Solutions business unit based in Gatineau, Canada, which Harris Canada Systems, Inc. first transferred to a Canadian company established specifically for the purpose of this transaction; Frequentis then acquired all shares in the new company (closing: 28 May 2021, now Frequentis Canada ATM Ltd), and
- the acquisition of 100% of the shares in Harris C4i Pty. Ltd., Melbourne, Australia (closing 30 July 2021, now C4i Pty Ltd.).

Acquisition of Regola, Italy

At the beginning 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 teams in the area of public safety. Regola's command and control system complements the Public Safety portfolio. The aim is to step up international marketing.

FREQUENTIS AG, Austria				
	Regional Sales & Operations	Software product companies	Software development	Further participations
Europe	Frequentis Deutschland, Germany	ATRICs, Germany, 51%	Frequentis Czech Republic	AIRlabs Austria, 18%
	Frequentis France	CNS-Solutions & Support, Austria	Frequentis Romania	GroupEAD Europe, Spain, 28%
	Frequentis Norway	ELARA Leitstellentechnik, Germany, 51%	Frequentis Solutions & Services, Slovakia	Frequentis DFS Aerosense, Austria, 70%
	Frequentis UK	Frequentis Comsoft, Germany	PDTS, Austria	Mission Embedded, Austria, 20%
		Frequentis Orthogon, Germany		Secure Service Provision, Germany, 80%
		Nemergent Solutions, Spain, 15%		Systems Interface, UK, 51%
		Regola, Italy, 51%		team Technology Management, Austria, 51%
Australia/Asia	Frequentis Australasia, Australia	C4i, Australia		AIRNAV Technology Services, Philippines, 40%
	Frequentis Middle East, UAE			
	Frequentis (Shanghai), China			
	Frequentis Singapore			
Americas	Frequentis Brazil	Frequentis California, USA		
	Frequentis Canada	Frequentis Canada ATM		
	Frequentis Defense, USA			
	Frequentis USA			

Simplified visualisation; all shareholdings 100% unless otherwise stated. Company names abbreviated. As at March 2022.

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) and Raiffeisen Bank International (Teresa Schinwald) regularly write analyses and notes on Frequentis shares. A third bank will probably initiate coverage of Frequentis in 2022.

Share price performance

Despite the second year of the pandemic, with further lockdowns and increasing supply-side problems in certain industries, the leading stock market indices such as the Dow Jones, FTSE 100, and DAX rose. This was backed by corresponding business figures, global GDP growth of almost 6% (IMF / International Monetary Fund), and not least the increasing availability of COVID-19 vaccines. Some stock market indices rose to new all-time highs.

Having ended 2020 at EUR 18.10 / EUR 18.20 (Vienna Stock Exchange / XETRA Frankfurt), shares in Frequentis made a positive start to 2021 and the share price topped EUR 28.00 in June for the first time in its history. Contributory factors included the announcement of the figures for 2020 and acquisition of units of the listed US company L3Harris Technologies in February 2021. Between July and October 2021, the share price traded in a range of around EUR 24.00 to EUR 28.00.

Towards the end of November 2021, the share price rose to a new high of EUR 28.60 / EUR 28.50. It dropped back slightly at year-end and closed the year at EUR 26.70 / EUR 26.80. Over the year, it therefore gained 47.5% / 47.3% (Vienna Stock Exchange / XETRA Frankfurt), and therefore outperformed the ATX index (+38.9%) and the DAX index (+15.8%).

The most important exchanges for shares in Frequentis were the Vienna Stock Exchange and XETRA Frankfurt, which accounted for 48% and 31% of turnover respectively, followed by Tradegate (18%). 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 7,000 shares per day in 2021 (2020: around 7,000 shares per day).

Dividend and dividend policy

A dividend of EUR 0.20 per share for the 2021 financial year will be proposed at the Annual General Meeting on 2 June 2022 (dividend for 2020: EUR 0.15 per share). If this is approved, the total dividend distribution will be almost EUR 2.7 million, giving a dividend yield of 0.75% based on the closing price on the Vienna Stock Exchange at end-December 2021 (2020: 0.83%).

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).

Share buyback 2021

On 8 April 2021, the Executive Board of Frequentis AG decided to undertake a share repurchase programme in accordance with Section 65 (1) subsections 4 and 8 of the Austrian Companies Act (AktG) on the basis of the authorisation of the Annual General Meeting of 20 September 2019. A total of 15,500 treasury shares with a total value of EUR 384 thousand were repurchased. The share repurchase programme ended on 6 May 2021. Further details can be found at www.frequentis.com > Investor Relations > Share > Share Repurchase 2021.

Treasury shares

Following the share repurchase programme in 2021, the company held 15,500 treasury shares as at 31 December 2021. That was around 0.12% 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 2021 to foster dialogue. In addition to financial reporting, this included conference calls and participation in several capital market conferences and web conferences. In view of the ongoing pandemic, all formats were held virtually in 2021. It was therefore possible to address investors in more distant financial centres such as the USA. An overview of all past and future events is available at www.frequentis.com/en/IR > Financial calendar.

The Annual General Meeting was again held remotely in 2021. 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 2021	in EUR	26.80	26.70
Lowest price (closing price) in 2021	in EUR	18.10	17.90
Highest price (closing price) in 2021	in EUR	28.50	28.60
No. of shares outstanding as at 31 December 2021	in millions	13.28	13.28
Market capitalisation as at 31 December 2021	in EUR million	355.9	354.6
Share price performance in 2021			
(31 December 2021 vs. 31 December 2020)		+47.3%	+47.5%
Share price performance since the IPO in May 2019			
(31 December 2021 vs. issue price of EUR 18.00)		+48.9%	+48.3%
Index performance in 2021			
(31 December 2021 vs. 31 December 2020)		DAX +15.8%	ATX +38.9%

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 sponsor	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 2021	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.





Environment
Social
Governance

Corporate
social
responsibility:
Insights
into 2021

Ten years of Frequenty children's activity programme

Enabling employees to combine work and family life is very important to Vienna-based high-tech company Frequentis. For ten years, the company has organised the "Frequenty-Kinderwochen", a varied two-week summer activity programme for employees' children aged between 4 and 12. The focus of this programme is experimentation and discovery.

"As a family-friendly company, we believe it's important to offer our employees support with childcare in the challenging summer months. At the same time, we want to introduce the kids to the world of technology where their parents work," says CFO Peter Skerlan, the Executive Board member responsible for Human Resources.



CFO Talks foster dialogue with employees

"CFO Talks" were initiated in November on the initiative of Peter Skerlan, CFO, the Executive Board representative for ESG issues. Employees are invited to contribute ideas on ESG topics and to discuss them with the CFO in a relaxed setting.

The first CFO Talk on the topic of "Saving Energy & Electricity" generated many interesting impulses that were followed up in the departments.





Initiatives for the empowerment of women, especially in the world of technology

Frequentis is involved in several activities such as Girls! TECH UP, an initiative of the Austrian Association for Electrical Engineering (OVE), which aims to inspire girls to pursue careers in the world of technology.

Frequentis also cooperates with "sheconomy", a platform that showcases impressive women, and with "FIT-Frauen in die Technik" in Vienna.

With its membership in the "Agenda Bahnindustrie Frauen", Frequentis wants to present and encourage female professionals from the railway industry.



Best Recruiters 2021/22: 2nd place in the category IT / Software

Frequentis is happy to report about the 2nd place in the category IT / Software / Telecommunications, including the silver seal, awarded by Best Recruiters – the largest recruiting study in German-speaking countries.

The years 2020 and 2021 have put the labour market to the test, but even the pandemic could not diminish the quality of our recruiting measures. Interviews were largely conducted digitally and participation in job fairs was virtual where physical attendance was not possible.

Overall, Frequentis ranked 27th out of 558 participating companies, which underlines its above-average recruiting performance.



Frequentis Australasia proudly supports green energy solutions

Frequentis Australasia finalised the installation of 80 solar panels and a 30kW solar system in 2021. This was a milestone for the Australian facilities in Brisbane and Sydney, which now operate fully on green energy. This has greatly reduced their carbon footprint.



Initiative to monitor and reduce food waste

The caterer at Frequentis' headquarters in Vienna focuses on resource-saving food handling, starting with purchasing, the origin of the products, and their preparation, and continuing all the way to disposal. Concrete measures are also taken against food waste. These include careful planning of the range and coordinated purchasing, fresh preparation, regular replenishment of dishes, and attentive filling of the salad buffet. In order to draw attention to the topic of food waste avoidance, the annual campaign week "United Against Waste" was again staged at the company restaurant in autumn 2021. According to a study by SV Österreich, the ratio of waste to food served minus leftovers in the Frequentis restaurant in the first half of 2021 was 13%, which is below the average of 14% for the 51 participating company restaurants.

EcoVadis Bronze Award for CSR and sustainability performance

Sustainable corporate governance is essential for Frequentis AG. In the past, various activities were implemented within the framework of corporate social responsibility. These have now increasingly been combined, expanded, and further focused on sustainability and ESG. In the recently conducted evaluation by EcoVadis, a leading international provider of sustainability ratings (ESG ratings), Frequentis was awarded bronze for the first time. The award forms an important international benchmark and thus the basis for the further expansion of activities in the area of ESG.





YEARS OF INNOVATION
AND CONTINUITY
FOR A SAFER WORLD

Innovation & continuity – Frequentis' anniversary

In 2022, Frequentis is celebrating its 75th anniversary. Through its technological strength, innovative power, and consistent internationalisation, Frequentis has achieved a pole position in the global market for safety-critical solutions.

Long-term customer and partner relationships, employee loyalty, and sustainable corporate governance are cornerstones of success.

Freshquentis Challenge in Frequentis UK



Well-being and a sense of community – despite lockdown and working from home: Frequentis UK achieved this with the “Freshquentis Challenge” in early 2021.

Within the period of one month, each member of the Frequentis UK team had to “virtually” cover the distance from the office in London to the Group's headquarters and back again. A total of 566 hours in the fresh air! As proof, photos with the Frequentis mascot Maurice were shared on social media.

Some
insights into
Frequentis'
projects



Papua New Guinea to enhance safety-critical airspace network with Frequentis

Papua New Guinea's national air navigation services provider, NiuSky Pacific Limited, has selected Frequentis for a pilot project to further improve its critical network infrastructure. The pilot project includes the installation of the vitalsphere portfolio elements at Port Moresby as well as at a remote site. The automatic service level manager, which is designed specifically for the safety-critical ATM domain, performs constant evaluation of each available network connection. With this information it dynamically reroutes single traffic flows to the network, delivering the required performance and quality values for this specific type of traffic with no loss of network service. As a result, air traffic controllers are able to keep the skies open and safe.



French Air Traffic Control to benefit from Frequentis and CS Group voice communication system in 20-year replacement programme

French air navigation service provider DSNA has awarded Frequentis and CS GROUP a 20-year contract to provide a main and back-up IP-based radio / telephone voice communication system for 14 main air traffic control approach and tower control centres. CS GROUP is the consortium representative for this major project and Frequentis is co-contractor.

"Our relationship with CS GROUP began over 25 years ago when together we provided the ARTEMIS communication system for DSNA in five centres for en route air navigation. We are proud to be able to work on such a significant and extensive project with CS GROUP and DSNA again and look forward to further supporting the safety of air traffic control in France," says Hannu Juurakko, Frequentis Vice President ATM Civil and Chairman of the ATM Executive Team.



Frequentis signs agreement with Indra to digitalise the EUROCONTROL Integrated Network Management (INM) System

Frequentis will partner with Indra for the development of the EUROCONTROL Integrated Operational Airspace Data digital products. This agreement follows EUROCONTROL's selection of Indra and its partners to perform the digital transformation of its operational systems.

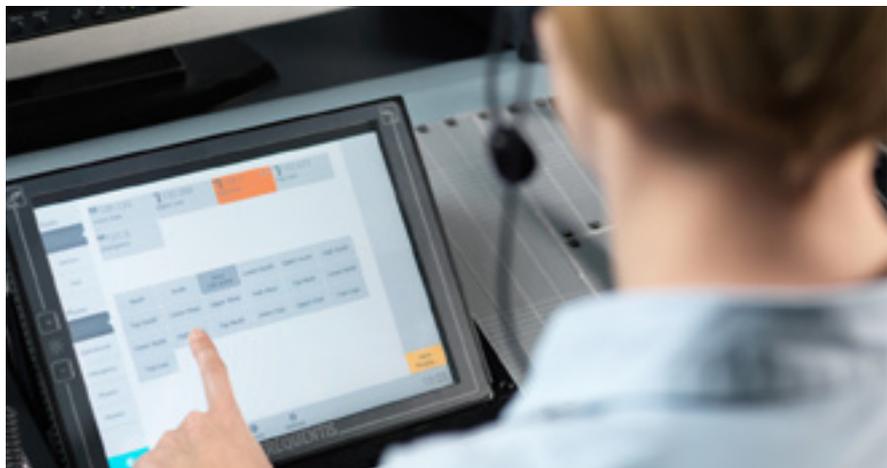
The agreement was signed on 26 October 2021 at the World Air Traffic Management Congress in Madrid.



Argentina completes airspace communication modernisation with Frequentis technology

Empresa Argentina de Navegacion Aerea (EANA) and Frequentis have concluded the installation of the Frequentis voice communication systems (VCS) and DIVOS recording systems for all Argentinian flight information regions at five aera control centres (ACCs) – Ezeiza, Comodoro Rivadavia, Mendoza, Resistencia, and Cordoba.

“By installing the Frequentis VCS 3020X and DIVOS products at all ACCs in Argentina, we are able to enhance airspace communications and support EANA’s critical mission to deliver air navigation services in Argentinian airspace in a safe, efficient, and sustainable manner,” says Hannu Juurakko, Frequentis Vice President ATM and Chairman of the ATM Executive Team.





Frequentis Orthogon supports Airport Operations Planning with its Demand Capacity Balancer solution

The Demand Capacity Balancer (DCB) extends the airport operations planning horizon by accurately forecasting demand, capacity, and performance metrics. It bridges the gap between strategic, pre-tactical, and tactical planning by replacing the conventional scheduled-based planning with a rolling Airport Operations Plan.

DCB enables information sharing and integration with the Network Operations Plan, for example through its unique capability to calculate and automatically propose Target Times of Arrival.



Great success with European Aeronautical Information Services Database EAD

Frequentis is delighted that it has been chosen by EAD for release development, IT service management and operations services for the third consecutive decade. This was confirmed in June with the signature of the multi-year contract extension for the EAD application maintenance and IT services provided by Frequentis and the provision of the EAD operations by GroupEAD Europe S.L.

“Frequentis is proud to have been a reliable partner for EAD from the very beginning,” says Frequentis CTO/COO Hermann Mattanovich. “We are very happy to serve EAD and EUROCONTROL for a third decade following extension of the contracts. With the recently signed contracts we continue to support the EAD programme on three levels – T service, maintenance, and operations.”

First integrated digital tower in Denmark completes proof of concept testing with FREQUENTIS DFS AEROSENSE



Naviair, the Danish air navigation service provider, has successfully completed proof of concept testing for its integrated digital tower and approach solution. The concept testing took place at Frequentis' premises in Austria and allowed Naviair to see several remote tower components on the integration platform MosaiX for the first time. The testing also allowed Naviair to request customisation based on its requirements, proving the flexibility of the solution.

Naviair selected the integrated tower and approach solution from FREQUENTIS DFS AEROSENSE in early 2020 to manage increasing airspace demand and support the workload of Air Traffic Control Operators. The initial remote tower centre at Billund airport will house the system, which is a combination of a remote digital tower and an approach automation solution (PRISMA APP). This will be the first time that both digital tower and approach services have been combined as one integrated system.

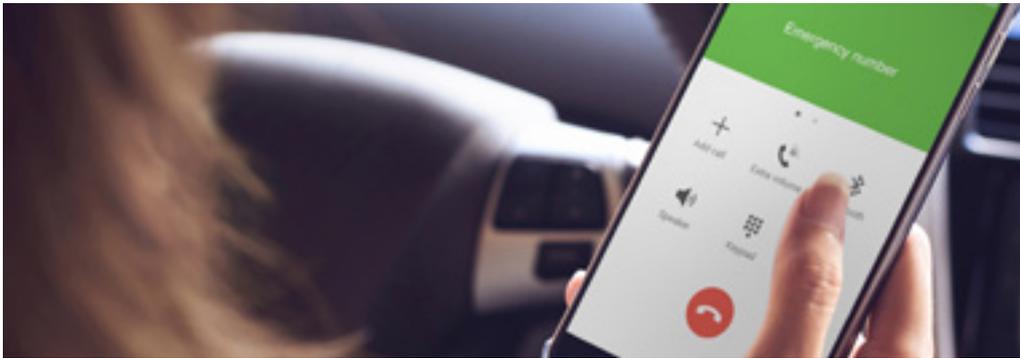
Royal Canadian Air Force trusts Frequentis communication and recording technology for three new tactical control radars



Frequentis Canada Limited has been selected by the prime contractor Thales Canada Inc. to provide mission critical communication equipment for its Tactical Control Radar (TCR) contract with the Department of National Defence. The contract, to support the future mission success of the Royal Canadian Air Force (RCAF), consists of three new TCR systems, to be located in Bagotville, Quebec, and Cold Lake, Alberta.

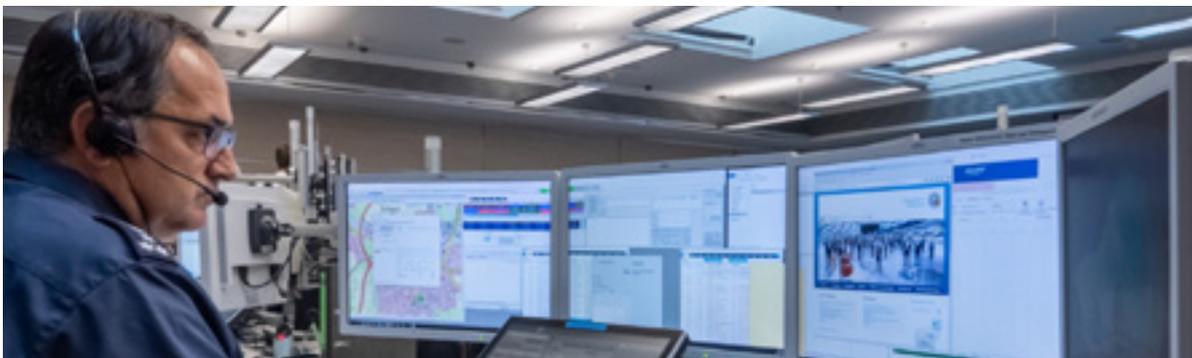
The TCR modernisation project will allow the RCAF to continue to support national and international operations, providing tactical, transportable, long-range air surveillance, and aerospace control capability.

Austrian Ministry of the Interior: Nationwide rollout of new revolutionary police command and control centre solution ELKOS

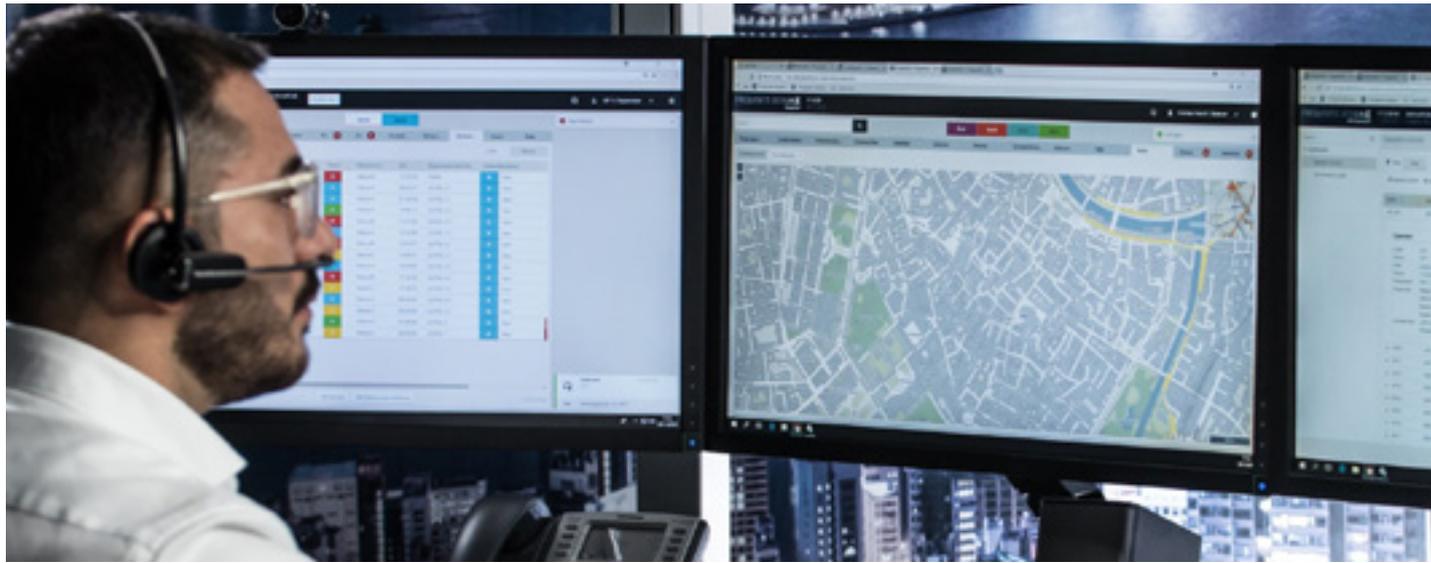


“The core of the delivery is the Frequentis 3020 LifeX as the communication hub between police control centres and police officers. Our highly reliable, state-of-the-art software solution supports police teams to ensure the safety of Austrian citizens around the clock, 365 days a year,” says Frequentis CEO Norbert Haslacher. “As an Austrian company, it is a particular pleasure for us to provide ELKOS, the largest safety-critical communication infrastructure in Austria, together with our partner Hexagon, the supplier of the computer-aided dispatch system.”

Bavarian police enhances emergency communication with the Frequentis 3020 LifeX public safety communication platform

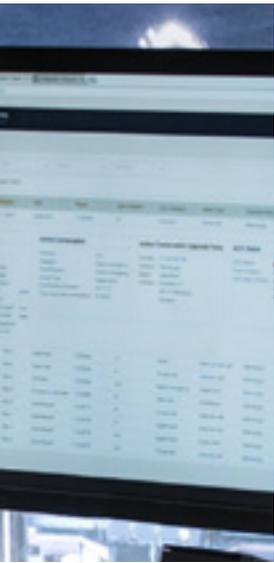


The Bavarian police force has successfully completed installation of the Frequentis LifeX multimedia communication platform, making it the first state-wide LifeX project supplied by Frequentis Public Safety in the German market. The rollout to nine control centres includes a total of 255 radio dispatch and emergency call taker working positions. The Bavarian police force signed the acceptance in December 2020. This event marks an important milestone for Public Safety and the market launch of the Frequentis mission-critical communication platform LifeX.



New technology for Marine Rescue New South Wales (NSW) helps save Australian boaters in distress

Australia's Marine Rescue New South Wales selected the Frequentis integrated maritime control centre solution MarTRX™ to enhance its emergency response to save lives on the water. The new integrated maritime control room technology from Frequentis will allow marine rescue radio operators and rescue vessel crews to respond more efficiently to boaters in distress.

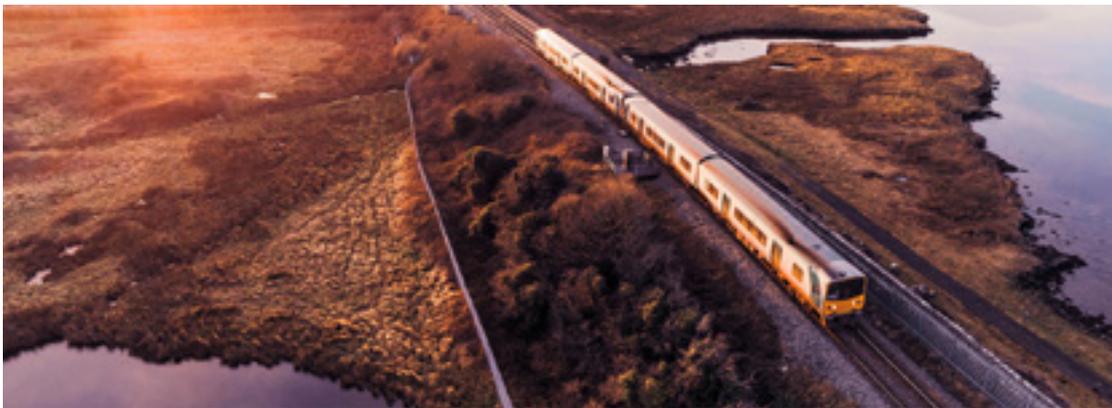


Frequentis successfully demonstrates additional voice and data feature set for Emergency Services Network in Great Britain

In the latest testing phase for the Emergency Services Network (ESN) project with the Home Office, Frequentis has successfully demonstrated the additional voice and data feature set. The Emergency Services Mobile Communications Programme is delivering the new Emergency Services Network critical communication system, which will replace the current TETRA-based Airwave system with a new LTE-Mission Critical Services (LTE-MCx) 3GPP-based radio communication system in Great Britain.

ESN will transmit fast, safe, and secure voice, video, and data across the 4G network and give first responders immediate access to life-saving data, images, and information in live situations and emergencies on the frontline.

Network Approval Testing Service certification – completed at the end of December 2021 – paves the way for the roll-out in the near future.



Iarnród Éireann optimises railway operations in Ireland with Frequentis

Iarnród Éireann, Irish Rail, has been implementing the Frequentis fixed terminal railway dispatcher terminal to enhance rail operations across Ireland. The new digital platform provides increased situational awareness for the controller and geo redundancy, providing a modern and future proof solution as an upgrade to the existing Frequentis system, installed in 2013.

Skyguide expands collaboration with Frequentis to advance its virtual centre strategy



Skyguide, the Swiss air navigation service provider and a member of FABEC, is evaluating the Frequentis next generation IT voice communication system, VCS3020X, and its ability to support the next phases of implementing its virtual centre strategy. With its Virtual Centre Program, Skyguide is a pioneer and innovation leader in the ATM industry. The Frequentis solution is the first ATM-grade IT VCS on the market and considered to be a good fit for the programme.

Some
insights into
R&D
projects &
initiatives



Frequentis Digital Cloud Services: paving the way for Estonian U-space

Estonian Air Navigation Services (EANS) has been working with Frequentis to create an environment where drones and civil aviation can coexist in the shared airspace. By integrating air traffic management (ATM) and unmanned traffic management (UTM) on the same platform, situational awareness and safety will be enhanced, allowing increased use of drones in Estonia. The project will accelerate the roll out of Estonian U-space (unmanned airspace) and allow drones to serve critical industry.



Project RISE successfully increases automation of drone flight approvals and air traffic control in non-segregated airspace

The UK Future Flight Challenge Consortium consisting of Dronecloud, Frequentis, Sky-Drones, Cranfield University, and Skyports successfully completed Project RISE to help unlock the future of drone operations by consolidating UTM services. Field trials were successfully completed at Cranfield Airport in the UK in November 2021, demonstrating a working solution.

Integrations were developed between a Ground Control Station (GCS), an Uncrewed Traffic Management Service Provider (UTMSP) and an Air Traffic Control (ATC) interface to increase levels of automation of approvals and ATC in non-segregated airspace.

Project RISE was funded by Innovate UK, through Phase 2 of the UK government's Future Flight Challenge.

Project FALKE: successful “dogfight” at Hamburg Airport



On 22 September, the interception of a non-cooperative drone was successfully demonstrated for the first time in a field test at Hamburg Airport as part of the FALKE project, funded by the BMVI (Federal Ministry of Transport and Digital Infrastructure).

The unauthorised intrusion of drones or unmanned aerial systems (UAS) into control zones means an increasing threat to the operation of commercial airports. The responsible parties at the airport are faced with the challenge of quickly detecting and reacting to the illegal entry of these small and agile flying objects in order to minimise any impact on airport operations.

Using the example of Hamburg Airport, the consortium partners of the “FALKE” project are developing and demonstrating their overall technical and organisational concept for the defence against illegally operating drones. FALKE provides an automated and standardised solution that can also be used at other German airports, taking into consideration all areas of competence and responsibility. In addition to the Frequentis Group, the German Federal Police, DFS, Lufthansa, Hamburg Airport, the Hensoldt Group, and the Professorship for Electrical Measurement Technology at the Helmut Schmidt University (HSU) Hamburg are involved in the project.

The FALKE project is funded by the German Federal Ministry of Transport.



SESAR partners successfully validate solution to delegate air traffic services

A project within the SESAR European research programme has been validating a solution that allows air traffic control to be delegated from one control centre to another, decoupling service provision from any specific location. This demonstrates the feasibility of virtual centre operations, making air traffic control interoperable in the future, with a flexible and scalable infrastructure that enables cross-border operations.

Frequentis provided the IT voice communication data centre infrastructure as well as the voice solution components, which are used by DFS at their controller working positions. Furthermore, Frequentis provided a central middleware that enabled all prototypes at the different locations to be connected.

The project “PJ.10-W2 PROSA” has received funding from the SESAR Joint Undertaking under the European Union’s Horizon 2020 research and innovation programme under grant agreement no. 874464.



First drone test flights of SESAR JU GOF 2.0 project took off in September 2021

Progressive enhancement of unmanned aerial vehicles (UAVs) and air taxis in the rapidly growing drone market increases the need to evolve technologies and framework conditions for their safe coexistence with manned aircraft.

The SESAR JU project “GOF 2.0 Integrated Urban Airspace Validation”, with a consortium of 15 members, will focus on the safe, secure, and sustainable integration of all airspace users into one unified airspace. The project kicked off at the end of January 2021. After eight months of intense preparation work, the first wave of trials started in Tartu, Estonia, on 2 September 2021 and continued in Finland, Poland, and Austria.

Frequentis is happy to be part of this sophisticated project and proud to contribute its expertise and technology for the safe, secure, and sustainable integration of unmanned aerial vehicle and airtaxi operations into urban airspace.

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. 101017689.



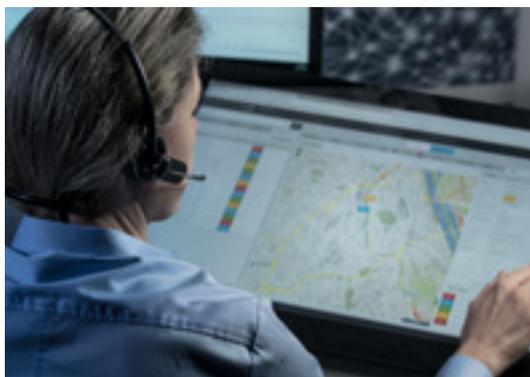
EU-funded project SlotMachine to use blockchain technology for more cost-efficient flight slot configuration



With passenger numbers expected to gradually rise again, the aviation industry will be confronted with growing air traffic and limited capacity at airports and in the air. This may lead to a renewed increase in delays, with the result that airlines need to prioritise their important flights. At the same time, airlines are struggling with increased cost pressures while the highest safety standards continue to require compliance with complex processes. Together with EUROCONTROL, the AIT Austrian Institute of Technology, the University of Linz (Austria), and Swiss International Airlines, Frequentis aims to foster the emergence a new kind of air traffic management (ATM) marketplace for airlines to exchange slot priorities. The platform to be developed by the SlotMachine consortium is expected to enable more flexible, faster, scalable, and (semi-) automated processing of slot sequence transactions in a fair and trustworthy way.

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. 890456.

Frequentis launches cooperation with Wien Energie for mission-critical mobile broadband communication in the public sector



On 25 November 2021, the first voice and video connection between Frequentis and Wien Energie, Austria's largest energy provider, was successfully tested in a field trial to demonstrate mission-critical broadband transmission in the public sector. The Frequentis technology for mission-critical services (MCX) in combination with Wien Energie's virtual mobile network allows the cost-effective implementation of high-availability push-to-talk and push-to-video services, which require special networks.

The BroadWay Project has received funding from the European Union's Horizon 2020 research and development programme under grant agreement no. 786912.

EU project BroadWay: BroadPort consortium led by Frequentis made first pan-European group call with public safety organisations



In the face of the current pandemic, the need for improved cross-border operations is evident. One and a half years after the BroadWay project kick-off, the BroadPort consortium, led by Frequentis, successfully demonstrated the first pan-European group call with public safety organisations from France, Germany, Latvia, Norway, and the Netherlands.

The end of June 2021 marked the official end of the solution prototype phase (Phase 2). The pilot phase (Phase 3) with the remaining two consortia – including Frequentis – started at the beginning of October 2021 and will run until September 2022.

The BroadWay Project has received funding from the European Union's Horizon 2020 research and development programme under grant agreement no. 786912.

Artificial intelligence to increase rail track safety

The Austrian Research Promotion Agency (FFG) is funding the HARMONY project to explore the use of artificial intelligence (AI) to detect irregularities on railway tracks.

The project, run by Mission Embedded, Frequentis, and the Institute of Computer Technology at the Vienna University of Technology, will investigate the use of an innovative track monitoring system that uses sensors and AI to detect anomalies on the track infrastructure. This aims to prevent consequential damage at an early stage and avoid potential accidents..

Funded/supported by the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation, and Technology (BMK) through the "IKT der Zukunft" (ICT of the Future) programme.



Awards

and

honours



Driving standards for aviation: Frequentis Director re-elected as EUROCAE Council Member and Vice President

At the 58th General Assembly of EUROCAE, held virtually in 2021, Michael Holzbauer, Frequentis Director European Affairs and Air Traffic Management Programmes, was re-elected to the EUROCAE Council as Vice President. This role recognises his ATM experience and gives Frequentis a representative within EUROCAE – renowned aviation standard-setting organisation.



Frequentis and Avinor win Air Traffic Management Award for ATM / UTM integration in Norway

Frequentis and the Norwegian air navigation service provider Avinor won the Air Traffic Management Award 2020 presented by the Air Traffic Management magazine for their ATM / UTM (unmanned traffic management) integration solution. The project caught the attention of the judges for its ability to provide situational awareness of the unified airspace and safe, secure, and reliable communication between air traffic control and drone operators.



Frequentis CFO Peter Skerlan receives Alumni Award

Congrats to Frequentis CFO Peter Skerlan! This year, the "FHWien der WKW" (University of Applied Sciences for Management & Communication) presented the Alumni Awards for the 14th time - and CFO Peter Skerlan was the winner in the category "Professional Achievements". The University of Applied Sciences Vienna stands for continuous career development and innovation and this award honours (future) professionals and executives who achieve national or international success in their industry or field of activity.



Frequentis Orthogon wins sustainability award at World ATM Congress 2021

The annual World Air Traffic Management Congress recognised the Frequentis Orthogon's Arrival Manager at its annual awards ceremony, held in Madrid on 26 October. Renamed the Maverick Awards in 2021, these awards reward companies and projects for their contributions in three categories: collaboration, innovation, and sustainability.

"We are thrilled that the Frequentis Orthogon AMAN system has won the Maverick Sustainability Award. It is well-known that a broad variety of solutions are required to achieve the aviation industry's sustainability goals and the Frequentis Orthogon AMAN is a significant contributor to greener operations," says Frank Köhne, Managing Director of Frequentis Orthogon.



Frequentis expert Charlotte Rösener elected Chair of the Industry Committee of the PSCE Forum

The Public Safety Communication Europe (PSCE) Forum has elected Charlotte Rösener, Frequentis expert in the field of mission-critical broadband communication, as Chair of the Industry Committee for the next four years. Charlotte Rösener was also admitted to the four-member Board of the Forum. "The election as Chair of the Industry Committee is a great recognition for our expert Charlotte Rösener and her achievements in the field of mission-critical broadband communication. Her appointment underlines Frequentis' positioning as an innovator and leading provider in the field of public safety," says Frequentis CEO Norbert Haslacher.

Consolidated Corporate Governance Report 2021

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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

- There is one old contract with an Executive Board member that has remained in force since the IPO in 2019 and does not currently provide any way of reclaiming short-term variable remuneration components that have already been granted. However, it is possible to reclaim long-term variable components (LTIP) that have been granted. These provisions of the Austrian Code of Corporate Governance will be taken into account when concluding new contracts or extending the old contract. 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 the 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 the 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.

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.

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 periodically by an external institution. In 2022, an evaluation of this type was undertaken for 2021 (for the first time since the IPO in May 2019) by BDO Austria GmbH, Wirtschaftsprüfungs- und Steuerberatungsgesellschaft, Vienna. The evaluation was undertaken using the official questionnaire issued by the Austrian Working Group for Corporate Governance and resulted in the conclusion that the Corporate Governance Declaration and the implementation of and compliance with the relevant rules of the Austrian Code of Corporate Governance are presented appropriately. The full report on the external evaluation can be viewed at www.frequentis.com > Investor Relations > Corporate Governance > Corporate Governance Reports.

Executive Board

Members of the Executive Board

In 2021, 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 2023	None
Sylvia Bardach (1962)	Member of the Executive Board (CFO)	3 July 2007	15 April 2021	None
Peter Skerlan (1968)	Member of the Executive Board (CFO)	16 April 2021	15 April 2026	None
Hermann Mattanovich (1960)	Member of the Executive Board (CTO and COO)	1 January 2009	31 Dec. 2022	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.

Responsibilities: Strategy, Sales, Strategic Business Units, Business Development, Investor Relations, Corporate Communications & Marketing.

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.

Sylvia Bardach was CFO of Frequentis AG from July 2007 and stepped down from the Executive Board on 15 April 2021 as part of the long-term succession plan.

Responsibilities: Finance, IT, Legal, Human Resources, Corporate Affairs, and Facility Management.

Sylvia Bardach has extensive training in accounting, controlling, and corporate management. In addition to this, she has taken courses in personnel development and in project portfolio and risk management. She started her career as a bookkeeper at CDS Computer and Data Systems and joined Frequentis in 1989 as Head of the Finance and Controlling department. From July 2007, she was CFO of Frequentis AG. In this function she was jointly responsible for the development of the Frequentis Group and its business success.

Peter Skerlan was appointed by the Supervisory Board to succeed Mrs. Sylvia Bardach as CFO of Frequentis AG with effect from 16 April 2021. Mr. Skerlan is also managing director of the following Frequentis Group company: BlueCall Systems GmbH.

Responsibilities: Finance, IT, Legal, Human Resources, Corporate Affairs, and Facility Management.

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.

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

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.

Supervisory Board

Members and independence of the Supervisory Board

In 2021, 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
Siegfried Meisel (1955)	Member of the Supervisory Board (employee representative)	1 January 2019	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

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 and is married to Mrs. Bardach (member of the Executive Board until 15 April 2021). 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 2021 [↗ Note 38 Information on business relations with related parties](#), there were no business transactions in 2021 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 four ordinary meetings in 2021. All members of the Supervisory Board took part in more than half of the meetings of the Supervisory Board. At its meetings, the Supervisory Board openly discussed with the Executive Board the 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 Commercialbank Mattersburg	Karl Michael Millauer (Chairman) Petra Preining Siegfried Meisel

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 2021. 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 the C rule no. 43 of the Austrian Code of Corporate Governance). In 2021, this committee held two meetings.

The **Special Committee on Commerzialbank Mattersburg** was set up by the Supervisory Board in connection with the Commerzialbank Mattersburg case. This committee monitors the measures to reclaim the company's deposits at Commerzialbank Mattersburg and the related assertion of claims against Commerzialbank Mattersburg and third parties. Furthermore, this special committee has been investigating and appraising the internal processes and responsibilities relating to the Commerzialbank Mattersburg case and has been monitoring the revision of the relevant processes and regulations. This special committee held one meeting in 2021.

As already outlined, neither the Audit Committee nor the Committee for Executive Board Issues meets the requirements of the 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%. The percentage of women on the Executive Board was 33% until 15 April 2021. Since 16 April 2021, the Executive Board has been composed entirely of men. As at 31 December 2021, the percentage of women in the Frequentis Group was around 21.7%. 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 – 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.

Vienna, 14 March 2022



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Foreword by the Executive Board

Sustainability as an opportunity for future development

GRI 102-14

Corporate social responsibility and sustainability are values that the Frequentis Group has been committed to in all its activities for many years. The Frequentis Group's third non-financial report presents the ESG (Environment, Social, Governance) measures that have already been implemented or are currently planned.

Our sustainable management approach supported us well through 2021, the second year of the pandemic. The focus was on the health and safety of our employees and ensuring business continuity. As a company operating in the safety-critical sector, we believe we have a duty to our customers and society to ensure the continuity of our business operations and the seamless functioning of our systems and solutions. The positive figures for 2021 show that, despite pandemic-related constraints, the market rewards our efforts.

In response to the increasing importance of professional sustainability reporting for all stakeholders, we conducted a new materiality analysis in November 2021. The content of the analysis was reviewed and the group of stakeholders was extended. We used an anonymised online questionnaire that only permitted personal responses.

A comparison with the results of the materiality analysis 2019 shows that awareness of almost all topics has increased, in some cases significantly. There was a particularly strong rise in the assessment of the relevance of social and environmental issues. The results and the measures derived from them will be integrated step by step into the established management systems to emphasise their global significance.

GRI 102-48

This report is based on Directive 2014/95/EU as regards disclosure of non-financial and diversity information (CSR Directive). The report is also prepared in reference to the Core option of 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](#)).

GRI 102-54

For the first time, the non-financial report for 2021 includes a chapter on the EU Taxonomy Regulation. In this way, Frequentis AG complies with the requirement to disclose its environmentally sustainable economic activities.

Sustainable management of the company is vital for the Frequentis Group and thus for us as the Executive Board. We are proud to report that our first CSR evaluation by EcoVadis resulted in the award of a bronze medal for our sustainability performance.

We do not view sustainability as an isolated task; for us, it is a fundamental and holistic principle of corporate management involving a large number of different aspects. In 2022, the ESG measures already implemented by Frequentis will be combined and extended in a proficient ESG organisation. Our objective is to handle ESG topics even more efficiently and enhance communication with our stakeholders. We intend to use the resulting opportunities in the future development of Frequentis.

Looking ahead to the future, we strive to continuously improve our social and ecological performance in all aspects, fulfil our compliance obligations, and actively work towards sustainable development. The focal areas of our materiality analysis 2021 will be used as a guide for the development and stepwise implementation of further policies. Taking the standards issued by the GRI (Global Reporting Initiative) as our basis, we want to drive forward the quality of our sustainability reporting, thus giving all stakeholders an opportunity to gain an objective and transparent overview of the Frequentis Group and its sustainability activities.

GRI 102-15

For a Safer World.



Norbert Haslacher
Chairman
of the Executive Board



Peter Škerlan
Member
of the Executive Board



Hermann Mattanovich
Member
of the Executive Board

About this report

GRI 102-50

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 2021.

GRI 102-51 GRI 102-52 GRI 102-46

The basis for the content of this annual non-financial report (the non-financial report on 2020 was published on 7 April 2021) 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 Act [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 third non-financial report of the Frequentis Group. It was prepared on the basis of a materiality analysis performed in November 2021. By extending the content and technical aspects of the materiality analysis, Frequentis aims to make a clear statement ([↗ Materiality analysis 2021](#)). The topics considered will be integrated step by step into the established management systems to emphasise their global significance.

GRI 102-48 GRI 102-54 GRI 102-55

This report was prepared in reference to the Core option of the GRI (Global Reporting Initiative) Standards. 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 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 in 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

GRI 102-56

The non-financial report was the subject of a limited assurance review by the audit and tax consultancy BDO Austria GmbH. This report was reviewed by Frequentis’ Supervisory Board in accordance with Section 96 (1) of the Austrian Companies Act (AktG).

The consolidated group on which this report is based is the same as for the financial reporting ([➤ Annual report / Consolidated financial statements / Group of consolidated companies](#)). 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).

GRI 102-45

To avoid redundancy, where appropriate the report refers to the notes to the consolidated financial statements for 2021 ("consolidated financial statements"), the Group management report ("management report"), the consolidated corporate governance report for 2021, 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 102-53

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

Company profile

GRI 102-1
GRI 102-2

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, shipping, railways).

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. 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.

GRI 102-3
GRI 102-4
GRI 102-10

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, Norway, Romania, Singapore, Slovakia, Switzerland, the UK, and the USA.

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

Frequentis' products and solutions are used at more than 40,000 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.

GRI 102-10

On 1 January 2021, Frequentis Slovakia and Frequentis Solutions were merged to form Frequentis Solutions & Services s.r.o. Building on its experience of software development, consulting, and project execution and its present business relationships, the new company now offers a wider range of services.

In 2021, three business units were acquired from L3Harris Technologies. These expand the ATM portfolio and strengthen Frequentis' position as a leading global provider.

The transaction comprised the acquisition of:

- the ATM voice communication systems product line of L3Harris, USA,
- the Harris ATC Solutions business unit of Harris Canada Systems Inc., Gatineau, Canada, now Frequentis Canada ATM Ltd,
- 100% of the shares in Harris C4i Pty. Ltd., Melbourne, Australia (closing 30 July 2021, now C4i Pty Ltd.), and
- the acquisition of 100% of the shares in Harris Orthogon GmbH, Bremen, Germany, now Frequentis Orthogon GmbH.

These acquisitions have greatly extended Frequentis' ATM and defence portfolio and strengthened its market access. The market-leading air traffic synchronisation products for en route, approach, and airport ATC centres of the Germany subsidiary Orthogon are now marketed by Frequentis and have been integrated into its offering for digital towers and control centres. The acquisition of the Harris ATC Solutions business unit from Harris Canada Systems extends Frequentis' technical offering and therefore its portfolio of ATM solutions. The Australian company C4i supplements Frequentis' ATM portfolio for the defence sector, which comprises communication and information systems for air defence and military air traffic control, systems for networked operational management and tactical networks, and management and information systems, including systems for integrated use by different authorities, by adding high-security, interoperable communication systems for mission-critical applications.

The Frequentis group generated revenues of EUR 333.5 million and EBIT of EUR 29.0 million in 2021. The Air Traffic Management segment accounted for 66% of Group revenues in 2021 (2020: 68%) and the Public Safety & Transport segment accounted for 34% (2020: 32%). Looking at the regional revenue split, in 2021 Europe accounted for 68% (2020: 66%), the Americas for 15% (2020: 16%), Asia for 9% (2020: 11%), Australia/Pacific for 5% (2020: 5%), and Africa for 2% (2020: 1%). Approximately 1% (2020: 1%) of revenues were not allocated to a region.

GRI 102-6
GRI 102-7

As a result of the transaction with L3Harris, the average headcount increased to 2,157 in 2021.

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 102-5

Business model

GRI 102-2
GRI 102-6

Wherever Frequentis' systems are used, people bear responsibility for the safety of other people and property. 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, shipping, and railways).

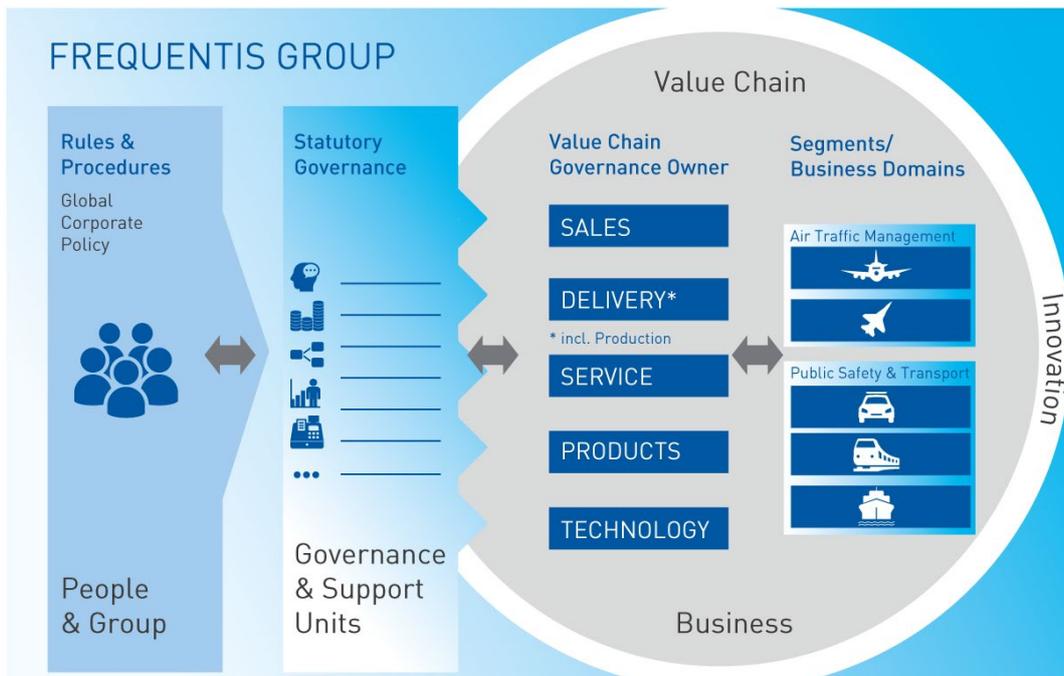
As a recognised specialist for the supply of safety-critical infrastructure, Frequentis develops future-oriented solutions for control centres in collaboration with key customers and makes new technologies usable for safety-critical applications.

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. The increased use of digital opportunities, high flexibility, and creative solutions by both customers and the company have enabled most business processes to continue during the COVID-19 pandemic without massive disruption or changes.

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 (for further information see [➤ Annual report / The company](#)).

Governance organisation

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.

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 risk, optimising workflows, and maintaining a general overview of the company.

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. This is achieved through interdisciplinary collaboration which leverages domain-specific know-how, the strengths of the business domains, and the specialist expertise of the Governance & Support functions.

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 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 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					
Secure Service Provision GmbH (SSP), Germany	2021					
Systems Interface Ltd., UK	2018					
TEAM Technology Management GmbH, Germany	2020					
team Technology Management GmbH, Austria	2004					

Following the merger of Frequentis Solutions and Frequentis Slovakia to form Frequentis Solutions & Services s.r.o. on 1 January 2021, this company was certified in conformance with ISO 9001 and ISO 27001 in 2021. Furthermore, Secure Service Provision GmbH (SSP) in Leipzig was successfully certified in conformance with ISO 9001.

Certification organisations audited the following Frequentis Group companies in 2021, confirmed their continued conformance with ISO 9001, and therefore extended the validity of the relevant certificates: Frequentis Australasia Pty Ltd., Frequentis California Inc., Frequentis Canada ATM Limited, Frequentis Comsoft GmbH, Systems Interface Ltd.

ESG organisation

GRI 102-18
GRI 102-19
GRI 102-20
GRI 102-21

To enhance the response to the broadly based environmental, social, and governance aspects and to 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 representative of the Executive Board, CFO Peter Skerlan bears executive-level responsibility for ESG topics.



An interdisciplinary ESG team will be working closely with the Executive Board to analyse, prioritise, and coordinate the implementation of individual measures. Current sustainability measures will be examined and modified jointly, and new sustainability projects will be initiated as necessary. In its role as coordinator, the ESG team maintains regular contact with Frequentis' shareholders. Impetus also comes from employees via the "Ideas" platform and from discussion platforms such as the CFO Talks. In this way, ESG initiatives will provide opportunities for the continued development of the entire Frequentis Group.

Within the framework of the Global Corporate Policy and the governance rules it contains, the defined ESG objectives will be put into practice through Group-wide specifications. All measures are supported by the Executive Board and the Supervisory Board as the highest governance body and the non-financial report is examined and approved by the Executive Board and the Supervisory Board.

Frequentis already has a good basis for expanding sustainable governance in the future: at the end of 2021, the company was awarded the sustainability medal in bronze in its first EcoVadis evaluation.

Sector initiatives and membership of organisations

GRI 102-12
GRI 102-13

Frequentis AG and its employees play an active role in many associations, institutions, and advocacy organisations. This is used to promote professional knowledge-sharing, structure content through committees and working groups, and play an active part in shaping national and international standards.

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 also has cooperations and memberships in the field of research, for example, in ISS (International Society for the Systems Sciences), and partners with various technical universities. One focus is on networking with international communities in the field of security ([↗ Security](#)).

In a cross-company context, Frequentis has been involved for many years in initiatives such as CorporAID, the Austrian platform for business, development, and global responsibility. As a partner of the Austrian network "Unternehmen für Familien" ("companies for families"), Frequentis actively makes a contribution to making businesses more family-friendly, both with its own sphere of influence and as an example and incentive for other organisations.

Materiality analysis 2021

Frequentis performed its first materiality analysis at the end of 2019. The Executive Board decided to conduct a new analysis in 2021 to improve the alignment with sustainability reporting requirements and the growth of the Frequentis Group.

GRI 102-49

The starting point for the 2021 non-financial report is the materiality analysis undertaken in November 2021. The questionnaire was based on the sustainability analysis 2019. The headings of the four sections remained unchanged, except for Safety & Security, which was altered to include the term data protection.

The statements relating to each of the four chapters were revised. The ESG team reviewed the 17 original sustainability topics to check whether they were relevant and up-to-date, and whether further focal areas should be added. For this purpose, the list of topics was compared with various frameworks such as the GRI Standards and the UN SDGs. To enhance understanding, the terminology used was adjusted. The outcome was a consolidated list of 21 sustainability topics. In addition, contextually relevant information was included in each of the four sections to help stakeholders in their assessment of relevance.

Dialogue with stakeholders

The stakeholder groups addressed by the materiality analysis were also extended. A new stakeholder group – suppliers – was added and the members of the Supervisory Board were included in the stakeholder group “top management”.

GRI 102-42

In total, 2,609 people were sent an email containing a link to the anonymised online questionnaire. The survey covered people in the following five stakeholder groups:

- **Employees and prospective employees**
All Frequentis Group employees (2,043, including the entities acquired from L3Harris); and 20 job applicants from current recruitment interviews
- **Customers**
Representatives of major customers (96 people, mainly key accounts); accounting for about 80% of Frequentis' business
- **Shareholders / capital market representatives**
Contacts flagged in the Frequentis investor database (308 people)
- **Suppliers**
Principally major suppliers used by Procurement; supplemented by suppliers to other departments with a sourcing agenda (83 people)

GRI 102-40

A further stakeholder group with a modified questionnaire comprised:

- **Top management**
A total of 59 people, including Vice Presidents of Frequentis AG (holders of power of attorney), Managing Directors of Frequentis subsidiaries, and members of Frequentis' Executive Board and Supervisory Board

The average response rate was over 20% (a total of 545 responses). The highest response rates were among top management and suppliers and the lowest rate was from job applicants.

For each individual statement (total: 21), the questionnaire looked at three dimensions. All stakeholders were asked to give their assessment from two perspectives. They were asked to assess the relevance on the significance of each activity from their viewpoint; this was not an evaluation of any specific business activities that had actually been performed:

- Please assess the relevance of our activities from your perspective as a stakeholder.
- Please assess the impact of our activities on society, the economy and/or ecology.

The top management group was also asked for their (qualitative and quantitative) assessment from the perspective of users of a financial report by considering the relevance of the activities for Frequentis' business operations.

The evaluation of the materiality analysis ([➤ Evaluation of the materiality analysis](#)) provided the basis for the extended reporting for stakeholders. Actively involving internal and external stakeholders beyond this analysis is important to Frequentis.

GRI 102-43
GRI 102-21

Regular dialogue with stakeholders plays a key role in this. Owing to the pandemic, this dialogue mainly took place digitally in 2021. Communication with the capital market, investors, and the media – roadshows, conferences, the Annual General Meeting, and meetings with the media – largely comprised video conferences. Similarly, virtual platforms were used for the majority of trade shows, customer user groups, workshops, and training sessions. A personal presence was possible at a few major events, for example, at the international World ATM Congress in Madrid, Spain, the world's largest trade show for the air traffic control sector, and the public safety exhibition PMR Expo in Cologne, Germany.

Frequentis' extensive intranet played a key role in the dialogue with employees. Staff were asked to 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 companies in the Frequentis Group.

A whistleblower services was introduced in December 2021. This can be accessed via the Frequentis website at www.frequentis.com/whistleblowing or via the company's intranet site. Frequentis therefore offers all internal and external stakeholders a simple and anonymous way to report suspicions of misconduct.

Evaluation of the materiality analysis

A total of 2,609 people were invited to participate using an anonymised questionnaire via the Microsoft Forms online tool. The six-point Likert scale was used to evaluate the questions.

The average for each stakeholder group was determined. From the averages for the customer, employees, prospective employees, suppliers, and investors stakeholder groups, a further average was derived, with each stakeholder group weighted equally in the chart.

The top management group was evaluated separately. This evaluation determined the size of the bubbles in the chart. To ensure an attractive presentation, the scores on the six-point Likert scale were standardised and scaled on the basis of minimum/maximum scores in the top management dataset. The axes on the chart were adjusted to represent the actual range of scores.

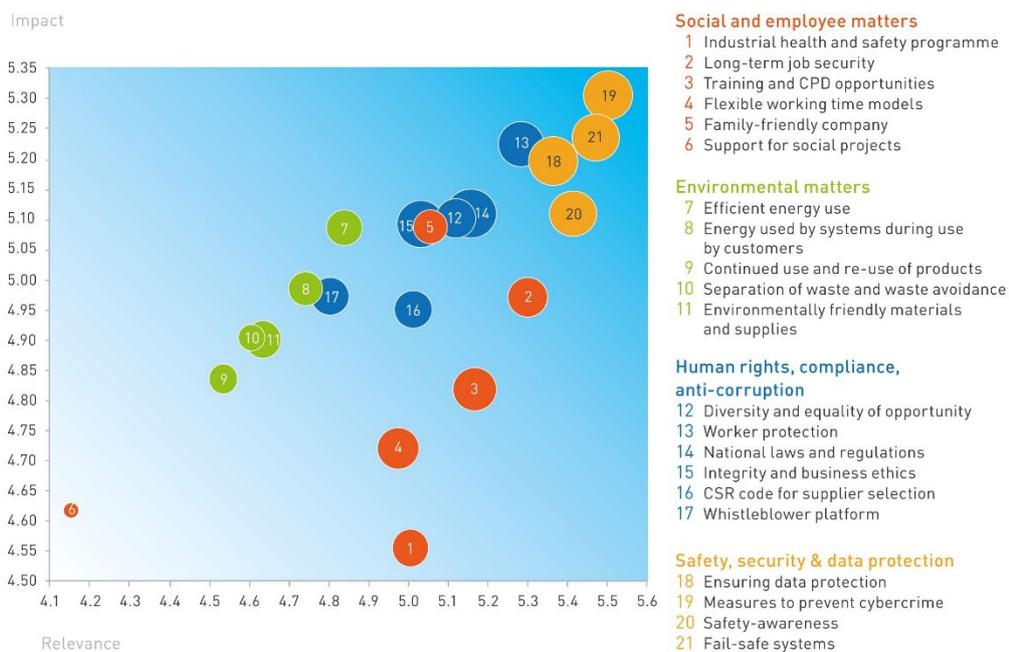
The feedback based on the statements in the survey was allocated among the following four areas:

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

The concept for the materiality analysis 2021 was discussed with the Executive Board at a meeting in October and the results were discussed with the Executive Board at the end of November. Moreover, in December 2021 the results were presented to Frequentis' Supervisory Board (which was actively included in the survey).

The results of the materiality analysis are shown in the following matrix. The x-axis shows stakeholders' assessment of the relevance of the various aspects, while the y-axis shows their assessment of the impact of the various activities on society, the economy, and/or ecology. 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 102-47



The overview of the 21 statements used in the questionnaire shows that the topics from the areas of safety, security & data protection, as well as 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.

GRI 102-49

A comparison with the results of the materiality analysis 2019 shows that awareness of almost all topics has significantly increased. In particular, there was a considerable increase in the assessment of the relevance of social and environmental issues. Examples from the area of social and employee matters are occupational health and safety programmes and measures to ensure long-term job security. Within environmental matters this applies to the topics of efficient energy use and the energy use of systems during use by customers.

GRI 102-44

In the context of this survey of the various stakeholder groups, the ESG team did not receive any information on issues outside those included in the materiality analysis. Therefore, this report only refers to the analysis of the issues identified as being material. The ESG team is examining the additional remarks entered by the various stakeholder groups in the comments section as well as the fundamental assessments and the action to be taken as a result. The findings will be presented to the Executive Board for approval.

Impact of the COVID-19 pandemic

This section provides an overview of the impact of the coronavirus pandemic on the company in the context of non-financial reporting. The economic effects are outlined in the Group management report ([➤ Business performance](#)). The following comments relate to the effects of the crisis on Frequentis' internal and external stakeholders.

Overview of the action taken

To optimise management of the pandemic, an internal coronavirus crisis team was set up in March 2020. This is an interdisciplinary team composed of representatives of relevant departments, headed by the Chairman of the Executive Board. In 2021, the crisis team initially met weekly. From the summer it met every two weeks. At these meetings, the team evaluated the current situation and defined the action to be taken. Overall, 42 virtual meetings of the COVID-19 crisis team were held in 2021, supplemented by smaller-scale meetings to agree on specific measures.

As well as continuing the extensive measures defined in the areas of health & safety and facility management, increased digitalisation proved effective. One important factor here was that customers have strong confidence in Frequentis, while their flexibility and creativity supported the ability to find good solutions. Despite the travel restrictions, it was therefore possible to continue a high proportion of projects remotely (via video conferences) and even 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.

In internal communication, the establishment of a central email address was particularly effective as it enabled staff to post questions and comments on various aspects at any time and receive prompt answers.

In addition to the requirements imposed/recommended by national authorities, the following measures were defined and implemented:

- **Health & Safety:** specific rules and support measures for essential business travel to affected regions, installation of hand sanitiser dispensers, compliance with social distancing rules, mandatory face masks at Frequentis' locations, rules for direct and indirect contacts, assistance in registering for vaccinations
- **External and internal communication:** establishment of a Group-wide email address for questions and suggestions and a coronavirus information point in the intranet, introduction of an internal traffic light system to ensure rapid recognition of the measures to be implemented depending on the current situation
- **IT and facility management:** keeping the IT infrastructure operating and ensuring IT security, limiting the number of people per room/per department at the company's offices (switch to mobile working), installation of signs, checks on compliance with vaccination and testing regulations
- **Human resources and legal:** introduction of rules for working from home based on the legal provisions applicable for Frequentis AG in Vienna

- **Business continuity:** increased use of video conferencing for project acceptance and customer training; continuation of the “Sales Goes Digital” initiative, establishment of virtual demonstration rooms for customer acquisition
- **Subsidiaries:** focus on sharing knowledge, implementation of Group-wide measures in accordance with regional requirements

The impact of these measures on the individual aspects of the materiality analysis are outlined in the relevant sections. 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.

In addition to the ongoing COVID-19 risk management, in 2020 Frequentis’ Executive Board set up an internal interdisciplinary team to carry out a “black swan” analysis with the support of an external consultant. The revised list of black swan aspects (risks that are considered very unlikely to materialise but which could have a very high impact) was reviewed in detail in 2021 and risk mitigation concepts were developed. Furthermore, they were entered in CRISAM, the new ERM (enterprise risk management) system, so they are now an integral part of the ongoing risk management process.

Social and employee matters

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.

GRI 102-15

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 2021, 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.

Since the coronavirus pandemic continued in 2021, Frequentis' Human Resources department extended its activities in the areas of digitalisation and virtualisation, especially by extending the virtual modules available in the area of learning & development. 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.

Despite the pandemic-related constraints, Human Resources was particularly concerned to maintain and enhance the quality of recruiting activities. Owing to the coronavirus pandemic, the job application process was largely digitalised, with video calls with prospective employees becoming the new norm. In 2021, the recruitment team in Vienna conducted 574 job interviews. The first interview was held virtually, while some second interviews were held in person.

Feedback on the pandemic-induced modified application process was obtained via the employer rating platform "kununu". This shows that Frequentis was able to maintain its high-quality standards. Positive factors highlighted included the short response time, professional handling of the recruiting process, and the consistently courteous and respectful treatment of applicants.

In the "Best Recruiters" study 2020/21, Frequentis AG was awarded the silver seal in the IT/software/telecommunications sector for its open and professional HR activities. Being awarded second place in this sector by Best Recruiters, the largest recruiting study in German-speaking regions, confirms Frequentis' professional approach to recruitment. The results of this study are an important benchmark and provide guidance for the ongoing development of Frequentis' recruiting and employer branding activities.

The “Bringing a friend counts” initiative was introduced to extend the incentive scheme for employees who recommend Frequentis as an employer.

The number of employees in the Frequentis Group increased from an average of 1,907 in 2020 to 2,157 in 2021. About 50% of them work in Vienna.

The 13.1% increase in headcount was mainly due to the acquisition of the three L3Harris business units in 2021. An extensive integration programme has been introduced to familiarise the new colleagues with Frequentis’ organisation, culture, and processes.

Attractive workplaces

Occupational health and safety

Frequentis strives to offer lasting and sustainable workplaces because high staff turnover would be highly detrimental given the long-term focus of its business relationships. It would lead to a loss of domain know-how, which is particularly important in the safety-critical area. Moreover, continuity in customer and project management could not be assured.

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.

As a result of the COVID-19 pandemic, advising employees and managers on the new working situation and developing ways of combining personal needs, professional requirements, and statutory health protection regulations remained the focus of these activities in 2021.

GRI 403-2

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. To achieve this, an additional safety specialist was trained for Frequentis AG. Since 2021, the occupational health and safety team at Frequentis AG has comprised a medical officer, a psychologist, an external female safety specialist, and an internal male safety specialist. The aim is to ensure that hazards and inappropriate workloads are viewed from different angles so they can be avoided in the future.

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. For example, new chemical-resistant gloves were tested in 2021: their purpose is to minimise exposure to chemical hazards while giving wearers the necessary tactile sensitivity.

All chemicals used at Frequentis AG are managed using a tool provided 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 mitigated by the use of PPE by staff.

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, regular inspections are performed by the safety specialists. The safety specialists are very visible in the company and employees can contact them confidentially at any time.

Preventive healthcare

As a responsible employer, Frequentis has a genuine desire to actively foster the health of its employees. Vaccinations (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.

GRI 403-6

It was possible to offer many of these measures in 2021, as long as the pandemic-related precautions were observed. However, high-contact series test examinations were not carried out in order to avoid unnecessary exposure to the risk of infection.

To alleviate mental stress, which may result from deadlines, targets, or interpersonal differences, Frequentis AG has employed an occupational psychologist since 2004. In this way, the company can evaluate and prevent mental stress and also give employees access to a neutral assessment of situations they find stressful. These measures were stepped up due to the coronavirus pandemic.

As part of the workplace vaccination drive by the City of Vienna in collaboration with the Chamber of Commerce, 590 people at the Vienna location were given early access to COVID vaccinations because they were required to undertake business trips.

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. Meals are freshly cooked every day and up to four different menus are available. Great emphasis is placed on high-quality ingredients and on using regional and seasonal products. Cooking and eating also generates waste. At the restaurant on Frequentis' premises, various steps have therefore been taken to reduce food waste (annual "United Against Waste" campaign) and avoid it wherever possible. The catering provider SV 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.

Despite the coronavirus pandemic, catering was provided at the Vienna location without interruption and the staff restaurant offered a choice of several lunch menus almost every day. Various take-away offers organised by SV were very well received. They comprised a wide range of food and ready-made meals as well as specialities at different times of the year.

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 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 2021 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 their 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. On this basis, the floors in the staff restaurant at Frequentis AG were refurbished at the end of 2021 to make them less slippery, and malfunctioning tools and aids were disposed of.

GRI 403-3

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 pregnant 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, this 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.

Flexible working hours and the working environment

Well before the outbreak of the pandemic in early 2020, 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.

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.

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

Thanks to Frequentis' flexible working time model, the switch to more extensive working from home was achieved quickly and smoothly. Using Skype for Business, Microsoft Teams, and other web-based platforms, events were recast as online meetings, video conferences, webinars, etc.

A survey also showed that employees are keen on more flexible working practices that improve the ability to combine mobile working with working on the company's premises. To define extended flexibilisation of this type for and at Frequentis, the NewWork@Frequentis pilot project was launched at the end of 2020. This involved more than one hundred employees from five organisational units in Vienna and representatives of the Workers' Council. Areas examined included optimising guidance for the Frequentis Group and specific organisational units. This involved analysing employment law conditions and the impact on the Frequentis culture, as well as the capacity required at company premises and function-specific requirements. This pilot project was completed in the first half of 2021 and the findings were incorporated in a corresponding works agreement at Frequentis AG in Vienna setting out the basic conditions for working from home.

The statutory framework for working from home has been defined by an Austrian law adopted in April 2021, which is designed to improve the structure and safety of working from home. Frequentis has

agreed that staff can work from home for up to a maximum of three days a week, depending on their function profile and job. Corresponding individual agreements were signed by managers and their employees by autumn 2021. To supplement these agreements, guidelines on hybrid working were drawn up and distributed to the teams.

During the pandemic and the related lockdowns, these rules on working from home were temporarily put on ice. Overall, however, they are an important first step towards a new way of working once the pandemic is over. A framework for working from home is to be set at Frequentis companies worldwide in the future, based on local legal requirements.

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. This initiative was continued in 2021 despite the challenging conditions. In its tenth anniversary year, 86 children were offered two exciting weeks under this programme - naturally with an extensive pandemic-compliant concept. The varied programme blended focal areas from the previous nine years, including protecting and helping, researching, cultural activities, and nature. The programme has therefore helped foster a passion for technology and an interest in natural sciences and experiments from a young age, supplemented by sports activities for active children.

The Frequenty Kinderwochen will be organised again in 2022. Through this initiative, Frequentis actively contributes to the Austrian Family Ministry's "Companies for Families" programme. Frequentis has been a network partner for this programme since 2015.

Broadly based staff development

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.

GRI 404-2

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 2020, the onboarding programme was adapted because of the coronavirus pandemic. For example, the monthly welcome workshops are now held online and mandatory training sessions have been switched to distance learning or a virtual classroom. 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.

GRI 404-3

In 2021, a documented appraisal interview was held with 67% of staff in the Frequentis Group. This included agreeing and defining targets for the coming year. The decline from 83% in 2020 is attributable to the fact that the Group-wide appraisal system has not yet been rolled out to the new employees who joined the Frequentis Group through the acquisition of the L3Harris business units.

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. Talent management, which covers more than three-quarters of all employees in the Frequentis Group, provides an overview of the distribution of performance and potential in the company and its organisational units and teams. At the same time, it provides a specific case-by-case insight into where development measures are necessary. Company-wide vocational training and continuing professional development programmes are aligned to these needs. 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 the Group-wide talent programme in 2021.

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 extensive training offering, Frequentis employees participated in more than 3,500 training sessions in 2021. The decline compared with 2020, when participation in training sessions was around 5,800, is due to the increase in target-group-specific web-based training and self-study opportunities. Overall, employees' interest in learning has not decreased during the pandemic. 80% of in-person training sessions are conducted by internal instructors, who also provide extensive input for the development of web-based training modules. This is an important element in passing on knowledge and safeguarding Frequentis-specific know-how.

GRI 404-2

Frequentis has been working intensively on a learning & development digitalisation strategy for several years. The pandemic increased the relevance of these activities. The HR Learning & Development team offers extensive opportunities for virtual training, distance learning, and blended learning. 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. To strengthen awareness of sustainability issues, the employee magazine *Frequente* includes reports on topical issues in a special ESG section.

To support the large number of internal trainers, a special intranet platform was set up under the acronym FIT (Frequentis internal trainers) to provide training tools, useful content, and tips on how to prepare digital training sessions. The O'Reilly Online Learning Platform offers access to a wide range of videos, audio books, and e-books on technology and IT.

In the area of personal development, the focus was on intercultural training and training in lateral leadership. Training was also provided in specialist areas and new technologies. This was supplemented by well-attended security training sessions and mandatory training on protection of personal data.

Distance learning is continuing to gain in importance throughout the Group: the number of courses available increased from 311 in 2020 to 427 in 2021.

Frequentis sees informal learning as an important element in modern vocational training and continuing professional development: it enhances the effectiveness and durability of learning processes. Communities of practice provide a platform for communication and for sharing knowledge across functional and organisational boundaries at Frequentis. By year-end 2021, there were a total of twenty Group-wide expert communities, covering a wide range of topics, from security aspects through data science and cloud technologies to engineering challenges.

Sales Excellence Programme

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, the offering was driven forward extensively on the basis of an internal analysis of the strengths and development areas of the Frequentis sales organisation. The results of this analysis were used to extend and improve the training available to sales staff. For instance, new target-group-oriented modules on topics such as trusted-base selling and consultative selling were developed. The pilot training sessions were very successful.

In view of the coronavirus situation, all sales training was switched from in-person to virtual classroom formats. Besides reducing travel expenses – and, as a side-effect, avoiding CO₂ emissions – this provided enormous flexibility as the training sessions could be made available to all Frequentis subsidiaries regardless of their geographical location.

These activities will be continued in 2022 (for information on mandatory training in data protection and security, see [➤ Safety, security & data protection](#)).

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 part-time employment for older employees and retirement. 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. Trainee programmes are run every year and early planning and development of successors is ensured for positions where staff 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.

GRI 406-1

The present low proportion of female specialists and managers is due to the fact that the proportion of women in technical professions is still comparatively low. For instance, only 25.7% of the over 4,000 job applications received by Frequentis AG in 2021 were submitted by women. The situation is different at Frequentis Romania. In view of the high number of qualified women with a technical background in Romania, the percentage of female employees at this development company is over 34% (which is well above the Frequentis average of 21.7%).

From the perspective of a high-tech company like Frequentis, a higher number of female staff in technical professions would be desirable. Mixed teams are generally more effective and enrich the company. In 2022, Frequentis will be continuing the initiative introduced in autumn 2021 to promote the exchange of female managers and staff. The objective is to encourage women at Frequentis to play an active part in shaping their career and to give them additional support.

Frequentis is also involved in a range of cooperation projects with schools and universities to interest women in technical professions. For example, the company 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.

These services are systematically being extended. To tailor training more specifically to the needs of each company, greater responsibility is being delegated to them and central management in Vienna is being scaled back. The aim of this rollout is to establish a learning & development role at selected locations as a first line of contact for local staff.

An important element to increase foreign assignments is the successful reintegration of returning staff. Discussions with (new) managers, tax advice for returning employees, and individual coaching pave the way for ongoing career success at headquarters in Vienna. The International Assignment Programme gives staff an opportunity to gain experience of working at a subsidiary in a different country, which also helps to spread the Frequentis culture throughout the Group. The 2020 "Assignment Voices" communication drive, comprising articles and short videos, and the establishment of a platform for assignees to share experience have proven effective: a total of eight international assignments were arranged successfully in 2021 despite restricted opportunities due to the pandemic.

Another goal is to establish local HR managers or HR support staff. For example, new HR Global Business Partners were appointed in Australia, the UK, and Canada in 2021. In this context, considerable attention is paid to knowledge transfer and sharing know-how. To achieve these goals and network content and all international HR employees, an International Human Resources Community was established in 2020. Information on topical HR issues and best practices is regularly shared on this platform – there were four Global HR Community Calls in 2021 – so it is an important element to step up and extend international HR work.

This knowledge transfer also 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.

In terms of collaboration, the special situation resulting from the coronavirus pandemic has brought people closer together and enhanced understanding of other people's working conditions. International collaboration was stepped up. For example, the various locations were closely involved in all activities of the coronavirus crisis team. Worldwide, everyone worked in the same conditions, despite different time zones.

This increased sense of community was strengthened by regular video messages from members of the Frequentis Executive Board and various social elements. The Frequentis Developer Days, which were held for the first time in 2021, established an important platform for the more than 600 developers in the Frequentis Group to share knowledge, network, and get to know each other better.

Social responsibility

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

Disadvantaged social groups have been particularly badly affected by the coronavirus pandemic and its emotional consequences, for example, isolation, restrictions on social contact, job losses, and health worries. Supporting children has a special place at Frequentis: in many cases too little attention is paid to their situation because they are the weakest members of society. Therefore, Frequentis chose the child relief organisations SOS-Kinderdorf Österreich and SOS-Kinderdorf International for its Christmas donations.

Subsidiaries have similar initiatives. One example is the outreach program run by AIRNAV Technology Services, a Frequentis subsidiary in the Philippines. School supplies and personal gifts such as vitamin preparations, toys, clothing, and sweets were donated to children in an isolated village.

Frequentis also supports staff initiatives such as food donations to charitable institutions organised at the Vienna location.

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.

Therefore, Frequentis AG offers work-experience placements for students and co-supervises dissertations and theses for bachelor's and master's degrees. Other activities include sponsorship, workshops, and study trips for higher technical colleges in Vienna and Lower Austria. Various activities were planned for students from higher technical colleges at Frequentis' headquarters in 2021. However, these were only possible to a very restricted extent due to the coronavirus pandemic. In 2021, a partnership was established with IT-HTL (Higher Institute of Technical Education) in Shkodra, Albania, to supervise students' dissertations and arrange work experience placements and employment for graduates.

For many years, Frequentis has also been committed to helping various universities in Austria improve their quality of training. In cooperation with the Vienna Technical University, it has held joint training events for a number of years where experts from Frequentis give students an insight into control centre know-how and examples of best practices. “Adventure in Computer Science”, another cooperation with Vienna Technical University 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 partners with start-ups throughout the world and operates its own Start-Up Centre in Vienna, Austria. In this way, Frequentis has helped around 70 new IT, hardware, software, and technology consulting companies become established on the market since the 1990s.

Support at the Start-Up Centre in Vienna is provided for a couple of years. In addition to an affordable and flexible location with appropriate infrastructure, the young entrepreneurs have the chance to access direct business opportunities at Frequentis during the support period. Interaction with the entrepreneurs draws attention to new approaches and provides new impetus for innovations. Organisationally, support for these start-up activities is assigned to the New Business Development department at Frequentis. Considerable attention is paid to integrating, fostering, and shaping relevant start-ups with a focus on key technologies or through collaborative development of new products, features, and services.

An example of successful collaboration in 2021 is the Next Generation Safety project in cooperation with the start-up Ondewo. This project, which receives funding from the Austrian Research Promotion Agency (FFG), is working on the use of artificial intelligence in air traffic management. The aim is automated communication between air traffic controllers and pilots. Internationally, attention should be drawn to the collaboration with the Spanish company Nemergent Solutions S.L. on safety-critical broadband communication.

Environmental matters

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

*GRI 102-11
GRI 102-15*

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 and has been included in Frequentis' environmental concepts.

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 affects the energy efficiency of the customers who use them.

Frequentis 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 Frequentis strives to optimise the energy consumption of its systems and software to help customers optimise the energy consumption of their installations.

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.

*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' on-site 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 the groundwater table 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 live 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 environmental improvements. In this sense, Frequentis constantly strives to gain knowledge about and contribute to local nature conservation projects and initiatives to enhance environmental sustainability.

Long-standing partner for the EU's SESAR programme

SESAR – the Single European Sky ATM Research programme – 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. For the first time in history, the entire sector, including the armed forces, is working to meet commonly defined specifications and requirements, especially for capacity, safety, the environment, and cost-efficiency for the next 30 years.

GRI 305-5

One focus is on improving environmental compatibility, for example, by cutting carbon emissions by 10% to improve air quality and reduce noise. Frequentis has been a major industrial partner for this initiative since it started.

Re-use/refurbishment of products

GRI 301-2 GRI 301-3

Frequentis pays attention to the re-use and refurbishment of products. The central element in this is the selective repurchase of hardware components 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 components 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.

Since 1 January 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 302-1
GRI 302-4

In 2021, proportion of gas in the energy consumption at the company's headquarters in Vienna increased at reduced operational activity and lower on-site presence. Due to a reduction in the amount of waste heat (lower electricity consumption), it was not possible to achieve the target temperature in the heat exchanger, resulting in additional use of the gas-fired boiler.

However, electricity consumption at Frequentis AG's site was lower in 2021. Detailed energy data for Frequentis AG can be found in the section headed [➤ KPIs](#).

GRI 302-3

In 2021, there was a considerable reduction in total energy consumption by the installations integrated 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.

GRI 302-2

However, average power consumption of the operational systems is rising as electronic components are more densely packed.

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 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 head office 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). 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. The waste generated by Frequentis' activities at the Vienna location is disposed of by Saubermacher, an external waste disposal company. Saubermacher is known for its state-of-the-art recycling and disposal methods and its commitment to saving resources. Together with Frequentis' own measures, this long-standing partnership means that a high proportion of the materials contained in the waste can be reclaimed, therefore reducing the amount sent to landfill. The reported data on waste amounts per category come from detailed information provided by Saubermacher.

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' headquarters 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 re-preparation of the dishes on the lunch menu, and careful replenishment of the salad buffet. All this requires knowledge and conviction. For that reason, the company also places value on raising the awareness of its employees. To ensure this and to draw attention to the action that can be taken to avoid food waste, the staff restaurant held its annual "United Against Waste" week in autumn 2021. According to data provided by SV Österreich, in the first half of 2021, the proportion of waste relative to the amount of food served less waste from food preparation was 13%, which was below the average of 14% at the 51 staff restaurants monitored.

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 regular unannounced sampling by the authorities. The possibility of using rainwater for sanitary installations was analysed but had to be rejected as there are no separate pipes for this in the building.

GRI 307-1

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 2021.

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.

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

*GRI 305-1
GRI 305-5*

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 take into account the IPCC 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 CO₂ emissions, Frequentis 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. This 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 around 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 at this site no electricity indirect GHG emissions (Scope 2) are incurred from the generation of purchased electricity.

*GRI 305-2
GRI 305-5*

Frequentis is constantly extending the coverage of its GHG inventory. Therefore, it reports the following other indirect GHG emissions (Scope 3) for Frequentis AG for 2021: 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 managed 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 2021, these criteria were supplemented by the lessons learnt during the pandemic.

Green products

Frequentis systems support environment-friendly solutions. Specific products include solutions provided by Frequentis' subsidiary ATRiCS to integrate and automate workflows for air traffic controllers to reduce their workloads and draw attention to potentially dangerous situations. These technologies can reduce runway taxi time by aircraft, which helps to reduce carbon emissions.

The portfolio of green solutions offered by the Air Traffic Management segment has been expanded by the acquisition of Frequentis Orthogon in Germany. This company develops innovative air traffic synchronisation solutions for en-route, approach, and airport ATC centres, which help to bring down air traffic emissions.

In addition, Frequentis is playing a key role in research projects that aim to reduce carbon emissions. One example is its involvement in LDACS (L-band Digital Aeronautical Communications System). This high-performance data link enables the realisation of modern air traffic management processes. As a ground-based communication system, it also has the potential to take on navigation and surveillance activities in order to make flying more environmentally friendly.

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 102-15
GRI 102-16
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.

In addition to the written version, the basic principles of the Code of Conduct were presented to employees through an awareness video. The video is also used in compliance training and in the onboarding programme for new employees.

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 2021, 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 205-3
GRI 206-1
GRI 419-1*

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

In addition, a whistleblower system was established in December 2021.

Compliance

GRI 102-17
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 is continuing to be made of virtual classroom training sessions in 2022, partly because of the need to catch up due to the COVID-19 pandemic, and partly to achieve a steady increase in the training rate. This also gives international employees easier access to compliance training.

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

Four virtual training modules were used in 2021: the Compliance for Sales training course is a compulsory part of the Sales Excellence Programme for all sales staff. By year-end 2021, 89% of sales staff had completed this module ([↗ Sales Excellence Programme](#)).

Advice

The Compliance Officer is also the first line of contact for staff on compliance issues. 36 enquiries were dealt with in 2021. These were submitted by email to a special email account, compliance@frequentis.com, or asked personally or over the phone.

Compliance audits

GRI 205-1

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 automatically submit 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. Following a reduction in the number of expense claims in 2020 due to the coronavirus pandemic, in 2021, expense claims were almost back at the pre-pandemic level.

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 a new EU Directive, a whistleblower system was introduced in December 2021.

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 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 2021.

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 is being 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.

An extensive partner programme is to be developed for this in 2022. The aim is to improve the enablement and engagement of sales agents through events, training, and marketing support and make sure that all partners comply with Group-wide processes, standards, and policies in their work. A new policy for sales consultants will be drawn up and rolled out Group-wide.

In view of the international structure of Frequentis' agents and the associated compliance risks, the agent management process includes a mandatory compliance questionnaire that has to be completed and submitted before an agent agreement can be signed. The final review of the outcome of this compliance screening is performed by the Vice President Sales and the Head of Global Channel Management.

Capital market compliance

To implement capital market-relevant laws and regulations within the Frequentis Group, a capital market compliance policy was drawn up following the IPO in 2019. 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 was 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.

No face-to-face training was held in 2021 due to the COVID-19 pandemic. The mandatory online training on capital market issues introduced in 2020 was continued in 2021. 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 2021, 95% of employees 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 sub-contractors.

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.

GRI 412-2

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 (CoC) and the Corporate Social Responsibility (CSR) code for suppliers and sub-contractors, and in the contractual documents for sub-contractors, suppliers, coaches, and employment agencies.

The Frequentis CSR code is an integral part of the master agreement with suppliers.

The obligation to accept the CSR has been included in the supplier self-assessment. By signing this document at the start of the business relationship, suppliers given an undertaking confirm 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).

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 2021 assessment is currently in progress. The 2020 assessment covered 63 suppliers accounting for a procurement volume of EUR 22.7 million at Frequentis AG.

*GRI 308-1
GRI 414-1*

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 2021, with the introduction of an award for the best sustainability score.

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. Apart from intra-group procurement, 90% of Frequentis AG's procurement is from suppliers in Europe. Taking into account the subsidiaries that provide independent production and integration services, Europe still accounts for around 90% of procurement.

GRI 308-1
GRI 414-1

The performance of supplier audits was again restricted by the COVID-19 pandemic in 2021, but it was possible to conduct five on-site audits. Virtual audits were not carried out because visiting the supplier's premises to check quality is a very important part of supplier audits.

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. Further, scope to improve supplier audits is being evaluated.

GRI 305-5

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.

Public policy

GRI 415-1

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 2021.

Safety, security & data protection

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.

GRI 102-15

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 motto "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 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 it 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 designed as a mandatory training module that has to be refreshed every two years. The penetration rate was 91% at year-end 2021.

Safety

Safety means avoiding unacceptable operating risks, while security refers to the ability to defend against external attacks. 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, this 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.

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 introduced an extensive safety management system back in 1999. 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.

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, 150 employees have gained this safety certificate, including 17 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 the ISSS.

This programme comprises fundamental, generic system safety training in modular form (ranging from hazard management through safety-critical project management and safety-critical system design to software safety). The three-week course ends with an assessment based on Frequentis-specific safety analyses.

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.

Security

Within the context of safety, security has been an important area of focus at Frequentis for many years. High-tech control centres involve the integration of data from the Internet of Things (IoT), the use of software as a service (SaaS) to provide safety-critical applications, big data analyses, and, in particular, the networking of control centres and organisations. Frequentis has a sophisticated security organisation that makes sure that everything possible is done at Frequentis to ensure the highest possible level of security.

The Frequentis Security Organisation

The security organisation at Frequentis comprises three areas:

Governance and Support

This area of the organisation is authorised to issue policies. It is responsible for supporting the operational units in the implementation of these policies and for checking and reporting on their implementation. Support comprises training, providing tools, know-how, and experts and, in certain cases, taking on specific security tasks.

Governance and Support is structured as follows:

- **Chief Information Security Officer (CISO):** responsible for security risk management for the Frequentis Group, the information security management system, and shaping the security organisation
- **IT Information Security:** Group-wide governance responsibility for the security of the IT and communications infrastructure
- **System Security:** Group-wide governance responsibility for the security of Frequentis products and solutions that are delivered to customers; provision of security expertise for projects
- **Security Incident Response Team:** responsible for monitoring security alerts, preventive measures, and dealing with security incidents
- **Personnel Security:** Group-wide governance responsibility for two aspects of personnel security: protecting employees and protecting the company from attacks by insiders
- **Physical Security:** Group-wide governance responsibility for physical security at Frequentis Group locations

Business processes

Security has to be practised by all employees and integrated into their daily working processes. That applies, above all, to system security, which involves implementing specific security activities for Frequentis products along the entire value chain, from product design to delivery of a ready-to-use system to the customer and subsequent security cooperation during the operational phase. Explicit security roles have therefore been created. These are anchored in the operational units and work together with the governance and support units. They are:

- **Security engineers** in product and project teams: security engineers are responsible for correct implementation of security specifications at the technical level, e.g. design guidelines, coding guidelines, system hardening measures, and security tests. The principal target group for training comprises system engineers, integration engineers, test engineers, software engineers, and software architects. The training was focused on participants in Vienna.
- **Security agents** in the business units: the security agents support the management of their business unit in security-related aspects. These include the security offering, management of security-specific risks in products, offers, and projects, market presence, and communicating with customers on security notifications. Frequentis currently has eight security agents, each of which is allocated to a specific unit.

Virtual cross-functional teams

These teams support the implementation of security throughout the Group. They are:

- The **Security Incident Response Team (SIRT)**: this team is composed of selected experts from various operational units and is headed by the SIRT Manager. It is responsible for security notifications and incident response.
- The **Security Steering Committee**: this committee comprises a team of top managers from governance and the business. Its role is to coordinate security targets and strategy from business and governance perspectives and to derive top-level measures for the ongoing development of the Frequentis Group.
- The **Security Community**: this is a community of security-oriented employees. It is open to all employees and is moderated by the SIRT Manager. Topical security issues are analysed and discussed at monthly meetings. The community also provides a framework for informal exchange.

Networking with international 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, Frequentis 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 2021, 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

IT information 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. 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 issue within the company, for around 10 years all new staff in Vienna have taken part in Information Security Awareness Training, a web-based version of which has been offered throughout the Frequentis Group since 2015. Information Security Awareness Training is a compulsory course that 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 on an anonymous basis and feedback is published in the intranet and the staff newsletter. This is supplemented by lectures held by experts throughout the year and by other opportunities for sharing information within the community. In 2021, 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".

In 2021, governance rules were developed for information security to minimise the related risks throughout the Frequentis Group. A uniform level of protection is also to be established for subsidiaries with their own or separate IT infrastructure. This applies, in particular, to the subsidiaries that have been added to the Frequentis Group through the L3Harris transaction.

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 catch COVID-19 or are required to quarantine while on business trips.

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 of the special nature of the safety-critical sector in which the company works.

Physical security

GRI 102-11

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.

An extended Group-wide Physical Security Policy has therefore been introduced. This has increased the physical security standard in the Frequentis Group. In addition, improvements are continuously being implemented.

To protect the headquarters building in the interests of Frequentis, its staff, and its customers, improved organisational measures have been put in place in consultation with the authorities, and networked security technology has been updated.

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).

Frequentis appointed its own Data Protection Officer when the European Union's General Data Protection Regulation (GDPR) came into effect on 18 May 2018. Frequentis constantly applies the requirements of the GDPR and the local laws adopted to implement it. Activities to implement 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 local 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.

At the same time, Frequentis introduced mandatory e-learning modules on personal data protection, which have to be completed every two years. These give equal priority to protecting the data of employees, customers, and suppliers. These compulsory training modules still 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, 91% 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 2022.

Predefined workflows and templates are used to meet the requirements to enable data subjects to exercise their rights and to deal with any possible data breaches. Only a few data erasure requests were received in 2021. No complaints or processes in connection with data protection legislation were filed against Frequentis or its subsidiaries.

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 2021. 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"> • Breaches of human rights, workers' and social provisions • Physical and mental health impairments • Skills shortage • Intercultural misunderstandings 					
Impacts on non-financial matters	<ul style="list-style-type: none"> • Infringement of basic rights such as child labour, forced labour, right to freedom • 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 					
Impacts on Frequentis' business activities	<ul style="list-style-type: none"> • Criminal consequences • 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 • Lack of teamwork • Failure to utilise the potential of diversity and innovation 					
Concepts, due diligence processes, actions	p. 78ff.	p. 77f.	p. 77f., p. 81ff.	p. 75, p. 78, p. 80f.	p. 84f.	p. 77f., p. 83

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 			
Impacts 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"> Obstruction of circularity Accelerated depletion of resources 	<ul style="list-style-type: none"> Damage to the ecosystem Increased volume of waste Environmental impact of non-recyclable materials
Impacts on Frequentis' business activities	<ul style="list-style-type: none"> Increased costs (e.g., electricity, waste disposal costs, cost of materials) Threat of loss of orders due to failure to comply with international regulations (e.g., UN, EU) 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, actions	p. 86, p. 87f.	p. 86, p. 88f.	p. 86, p. 87	p. 86, p. 90

Respect for human rights

Material topics	Observance of human rights	Diversity and equality of opportunity	Worker protection
Risks	<ul style="list-style-type: none"> Infringement of human rights 		
Impacts on non-financial matters	<ul style="list-style-type: none"> Infringement of basic rights such as child labour, forced labour, right to freedom Social tensions Physical and mental illness Unfair remuneration Discrimination 		
Impacts 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, actions	p. 91ff.	p. 83	p. 78ff.

Fight against bribery and corruption

Material topics	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 		
Impacts 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 		
Impacts 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, actions	p. 92ff.	p. 93ff.	p. 94ff.

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 			
Impacts 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 			
Impacts 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, actions	p. 103	p. 102	p. 98f.	p. 97ff., p. 103

ESG outlook

Sustainability is a fundamental element in Frequentis' holistic corporate culture. The findings of the materiality analysis will be used as a basis for further work on the various topics. Key performance indicators already compiled are being mapped to the GRI indicators in the stepwise development process and preparations are under way for Group-wide calculation of further suitable GRI indicators.

To link up the wide range of sub-aspects and ensure good coverage of the entire Group, the focus in 2022 will be on setting up an efficient ESG organisation. Further concepts will be discussed and prioritised as part of an ESG management review with the executive-level sustainability representative, CFO Peter Skerlan. A newly developed ESG training module for all employees in the Frequentis Group will provide the necessary basic knowledge and raise awareness of sustainability issues.

In this way, Frequentis aims to handle ESG topics even more efficiently and enhance communication with stakeholders. The aim is to use the resulting opportunities in the future development of Frequentis.

All activities will be carried out in keeping with Frequentis' corporate governance policy.

Social and employee matters

All the HR concepts outlined in this report will be continued in 2022. Professional employer branding, systematic recruiting, and frank and open treatment of job applicants are very important in the competition to attract the best brains and secure qualified staff.

One focal area in 2022 will be further integration of the new Frequentis companies. The goal is to roll out HR services, especially training services, to these companies. The use of digital options will also be stepped up further.

Moreover, following the anticipated weakening of the pandemic, measures will be taken to strengthen social collaboration. The intention is to achieve this through re-enabled face-to-face meetings, events, and a Group-wide project "Culture@Frequentis", which was launched at the beginning of 2022 to drive forward the corporate culture in response to increasing internationalisation. Measures to strengthen Frequentis' position as an attractive employer and retain staff will be extended in 2022. The aim of the "Women & Career" initiative is to empower female staff and encourage them to play an active role in shaping their careers.

Environmental matters

GRI 102-11

In 2021, Frequentis optimised, extended, and standardised the principles for environmental reporting. Using a stepwise development process, the company will continue to extend and refine the collection of data in 2022.

As part of this, Frequentis continuously evaluates the individual needs and capacities of its subsidiaries. As well as embarking on the Group-wide rollout of environmental excellence monitoring, new measures will be defined in 2022 to bring a further reduction in the Group's environmental impact.

One key focus, in addition to driving forward established concepts, is the headquarters building in Vienna. Here, Frequentis is working on energy optimisation of the building, including ideas such as plants to cover the façade and building a roof over the car park so that solar panels can be installed. Similar concepts are being pursued at subsidiaries on the basis of local circumstances.

Another key focus is the ongoing development of "green products". Two avenues are being pursued:

- Expanding the product portfolio, for example, by adding traffic optimisation solutions to help our customers meet their environmental protection obligations (e.g. the demands arising from the European Union's Green Deal)
- Reducing the power consumption of Frequentis' installations during use by customers and increasing the efficiency of Frequentis' technical solutions

Structured work on these long-term issues will continue in 2022 and activities will be prioritised to achieve them.

Human rights, compliance, anti-corruption

Frequentis stands for an open and honest corporate culture and high standards of integrity. Throughout the Group, we give high priority to observing ethical standards of respect and security. The whistleblower service introduced in December 2021 provides scope for anonymous reporting of reservations or suspicions of serious misconduct.

Training in this area will also be stepped up in 2022. The Group-wide Global Channel Management organisation established at the start of 2022 will be checking that all sales agents apply Group-wide processes, standards, and policies, and meet the compliance requirements in their work.

In the selection of suppliers, Frequentis monitors criteria such as ethics, compliance with labour standards, and environmental protection, as set out in the Corporate Social Responsibility (CSR) code for suppliers and sub-contractors. The assessment criteria were refined and extended in 2021 and systematic implementation will continue in 2022. For example, a Frequentis award will be presented for the best sustainability evaluation in the 2021 supplier assessment.

Safety, security & data protection

All established safety, security, and data protection concepts will be continued in 2022 and rolled out to those areas of the Frequentis Group where they have not yet been implemented.

Special attention will be paid to security because control centres involve the integration of data from the Internet of Things (IoT), the use of software as a service (SaaS) to provide safety-critical applications, big data analyses, and, in particular, the networking of control centres and organisations. The Frequentis Group's cybersecurity organisation will therefore be strengthened and extended in 2022.

The internal security awareness campaign "You are the key to security" will continue in 2022.

Based on the Physical Security Policy introduced in 2021, physical security standards will be tightened throughout the Group and measures to improve security, for example at the Group's headquarters in Vienna, will be implemented step by step

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 the Vienna location (Frequentis AG). 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

	2021	2020	2019
Average no. of employees – Frequentis Group	2,157	1,907	1,849
thereof male	78.3%	77.8%	78.5%
Executive Board / Managing Directors	29	26	25
1st management level	26	n.a.	n.a.
Other managers	149	n.a.	n.a.
thereof female	21.7%	22.2%	21.5%
Executive Board / Managing Directors	0	1	1
1st management level	4	4	4
Other managers	25	n.a.	n.a.
Average no. of employees – Frequentis AG	999	984	993
thereof male	78.3%	77.0%	77.1%
Executive Board	until 1 April 2021: 2 from 1 April 2021: 3	2	2
1st management level	26	n.a.	n.a.
Other managers	88	n.a.	n.a.
thereof female	21.7%	23.0%	22.9%
Executive Board	until 1 April 2021: 1 from 1 April 2021: 0	1	1
1st management level	4	n.a.	n.a.
Other managers	14	n.a.	n.a.
New hires – Frequentis Group	448	207	198
thereof male	359	75.8%	69.7%
thereof female	89	24.2%	30.3%
New hires – Frequentis AG	92	73	85
thereof male	69	56	64
thereof female	23	17	21
Exits – Frequentis Group	212	177	190
thereof male	162	142	143
thereof female	50	35	47
Exits – Frequentis AG	64	78	87
thereof male	52	61	66
thereof female	12	17	21
Employee turnover – Frequentis Group			
New hires	20.7%	10.9%	10.7%
Exits	9.8%	9.3%	10.3%
Employee turnover – Frequentis AG			
New hires	9.2%	7.4%	8.6%
Exits	6.4%	7.9%	8.8%
Employees – Frequentis Group			
Part-time	315	241	198
thereof male	197	152	127
thereof female	118	89	71
Parental leave	51	49	49
thereof male	23	22	22
thereof female	28	27	27

GRI 102-8

GRI 401-1

GRI 401-1

GRI 401-3

	2021	2020	2019
Special dispensation	62	60	60
thereof male	25	24	25
thereof female	37	36	35
Training leave	4	5	3
thereof male	4	3	1
thereof female	0	2	2
Part-time training leave	7	8	4
thereof male	6	7	4
thereof female	1	1	0
Employees – Frequentis AG			
Part-time	146	129	122
thereof male	65	50	48
thereof female	81	79	74
Parental leave	44	43	42
thereof male	20	20	19
thereof female	24	23	23
Special dispensation	42	50	36
thereof male	21	32	23
thereof female	21	18	13
Training leave	4	2	1
thereof male	4	1	0
thereof female	0	1	1
Part-time training leave	7	8	4
thereof male	6	7	4
thereof female	1	1	0
Average length of employment – Frequentis AG	10.2	9.8	9.2
Average age – Frequentis Group			
Total	43	42	41
Executive Board	55	56	55
1st management level and other managers	45	47	n.a.
New hires	39	35	n.a.
Average age – Frequentis AG			
Total	42	42	41
Executive Board	55	56	55
1st management level	52	52	50
Other managers	47	47	47
New hires	35	32	34
No. of nationalities – Frequentis Group	55	55	n.a.
No. of nationalities – Frequentis AG	38	40	n.a.
No. of appraisal interviews held – Frequentis Group	67%	83%	n.a.
No. of appraisal interviews held – Frequentis AG	88%	89%	89%
No. of courses offered Group-wide¹	469	420	386
thereof distance learning	427	311	165
No. of classroom training sessions – Frequentis AG	35	216	524
thereof with internal instructors	88.6%	84.3%	84.7%
No. of Group-wide¹ virtual classroom training sessions	454	262	n.a.
thereof with internal instructors	92.3%	90.8%	n.a.

GRI 401-3

GRI 405-1

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

	2021	2020	2019	
Energy – Frequentis AG				<i>GRI 302-1</i>
Total energy consumption in kWh	6,994,086	6,513,575	6,258,770	
Consumption by type of fuel: natural gas in kWh	1,079,790	455,013	134,222	
Building electricity consumption in kWh	5,914,296	6,058,562	6,124,548	
Self-generated electricity (max. p.a.) in kWh	115,300	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	96,563	135,092	194,262	<i>GRI-302-2</i>
Total energy consumption as a percentage of total operating performance	2.1%	2.9%	2.7%	<i>GRI 302-3</i>
Total energy consumption per employee in kWh	6,925	6,647	6,303	
Consumption by type of fuel: natural gas per employee in kWh	1,069	464	135	
Building electricity consumption per employee in kWh	5,856	6,182	6,168	
Consumption by type of fuel: natural gas per m ² heatable area in kWh	47.5	20	5.9	
Self-generated energy (max. p.a.) per employee in kWh	114	118	116	
Average consumption by customer systems in W	386	313	260	
Emissions – Frequentis AG				
Direct (Scope 1) GHG emissions from consumption of natural gas in tonnes CO ₂ [eq]	218	92	27	<i>GRI 305-1</i>
Energy indirect (Scope 2) GHG emissions from electricity consumption in tonnes CO ₂ [eq]	0	0	0	<i>GRI 305-2</i>
Other indirect (Scope 3) GHG emissions in tonnes CO ₂ [eq]	718	646	2,653	<i>GRI 305-3</i>
Waste generated by operations	12	12	18	
Business travel ¹	706	634	2,635	
Hire cars	43	n.a.	n.a.	
Flights	663	634	2,635	
No. of flight legs on business trips ¹	4,084	3,474	14,663	
Waste – Frequentis AG				<i>GRI 306-3</i>
Weight of waste generated in tonnes	45	52	72	
Non-hazardous waste	43	51	71	
Municipal waste and similar commercial waste	19.76	19.66	30.54	
Paper and cardboard packaging (mixed packaging materials)	8.71	8.34	13.10	
Mixed plastic packaging	3.96	3.52	4.86	
Waste paper, paper, and cardboard, uncoated	3.61	4.94	8.50	
Waste wood for material recovery	2.34	5.92	2.06	
Mixed metal packaging	1.66	3.30	2.19	
Iron and steel waste	0.77	2.71	1.89	
Waste electrical and electronic equipment - small appliances	0.73	1.49	1.16	

	2021	2020	2019
Electrical and electronic devices and device parts, without environmentally relevant amounts of hazardous waste or ingredients	0.63	0.74	3.74
Waste electrical and electronic equipment - large appliances	0.42	0.00	0.00
Glass	0.18	0.35	1.26
Bulky waste	0.12	0.08	0.40
Sorted non-hazardous laboratory waste and residual chemicals	0.03	0.00	0.00
Waste wood	0.00	0.00	0.33
Waste wood for thermal recovery	0.00	0.00	0.56
Gases in steel pressure cylinders, non-hazardous	0.00	0.00	0.00
Organic waste for composting	0.00	0.13	0.52
Kitchen and food waste	0.00	0.00	0.42
Hazardous waste	1.70	0.38	0.38
Electrical and electronic devices and device parts, with environmentally relevant amounts of hazardous waste or ingredients	1.46	0.00	0.00
Screen devices	0.20	0.21	0.17
Waste electrical and electronic equipment - large equipment with hazardous properties	0.01	0.00	0.00
Synthetic coolants and lubricants	0.01	0.00	0.00
Paints	0.01	0.00	0.00
Unsorted or hazardous laboratory waste and residual chemicals	0.01	0.00	0.00
Pressurised containers (sprays) with residues	0.00	0.02	0.04
Batteries	0.00	0.12	0.17
Cooling and air conditioning units with refrigerants containing CFC, HFC and HC	0.00	0.03	0.00
Environmentally friendly vehicles – Frequentis AG			
Electric cars	9	6	3
Hybrid cars	8	2	0
PCs and workstations equipped with Skype and Teams functionality – Frequentis Group			
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 Skype/Teams meetings per month ²	24,413	17,095	5,446

¹ Frequentis AG and subsidiaries served centrally by Frequentis Travel Management.

² The entire Group is linked via SkypeForBusiness and Teams, so it is not possible to draw a distinction between Frequentis AG and the Frequentis Group.

Human rights, compliance & anti-corruption

	2021	2020	2019	
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	36	12	14	
No. of compliance enquiries from employees – Frequentis AG	27	11	n.a.	
Reports via the whistleblower platform (introduced in December 2021)	0	n.a.	n.a.	
Compliance training in face-to-face/virtual classroom sessions	4	3	4	
Checking invoices for compliance with the requirements of the Group policy on anti-corruption, invitations, and gifts; cases referred – Frequentis AG	37	5	40	GRI 205-1
Classroom-based training in capital market compliance for specific target groups in 2019 – Frequentis AG	n.a.	n.a.	4	
Online training in capital market compliance for all employees (mandatory) from 2020				GRI 412-2
Frequentis Group (in % of total workforce)	95%	85.1%	n.a.	
Frequentis AG (in % of total workforce)	95%	94.4%	n.a.	
Supplier audits performed by Frequentis AG	5	4	7	
Geographical structure of suppliers and service providers by order volume ¹				GRI 204-1
Europe	90.0%	93.5%	77.4%	
North America	6.9%	2.7%	16.0%	
Asia	1.2%	2.0%	2.5%	
Australia	1.0%	1.3%	2.7%	
South America	0.5%	0.2%	0.3%	
Middle East	0.3%	0.1%	0.3%	
Africa	0.1%	0.7%	0.8%	
Geographical structure of suppliers and service providers based on order volume by Frequentis AG				
Europe	89.9%	95.6%	92.5%	
North America	7.0%	1.5%	3.1%	
Asia	1.7%	1.3%	2.4%	
South America	0.8%	0.3%	0.4%	
Middle East	0.5%	0.1%	0.5%	
Africa	0.2%	1.1%	1.1%	
Australia	0.0%	0.0%	0.1%	

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

	2021	2020	2019
Total number of safety certificates issued – Frequentis Group	157	150	143
thereof newly issued “Basic” certificates	7	7	12
Additional “Upgrade” safety certificates	15	9	25
Total number of safety certificates issued – Frequentis AG	140	133	128
thereof newly issued “Basic” certificates	7	5	11
Additional “Upgrade” safety certificates	15	9	25
Training in safety-critical behaviour – Frequentis Group	91%	74%	n.a.
Training in safety-critical behaviour – Frequentis AG	89%	79%	n.a.
Occupational safety training – Frequentis AG	454	536	544
Work-related accidents – Frequentis AG	3	3	5
of which serious accidents	0	0	0
Near misses – Frequentis AG	3	2	4
Improvements derived from these accidents	3	2	4
Completed system security training sessions – Frequentis Group			
System Security Overview for Engineers	53	44	46
System Security Advanced for Engineers	32	26	42
Completed system security training sessions – Frequentis AG			
System Security Overview for Engineers	30	33	42
System Security Advanced for Engineers	15	16	36
Successful completion of “ Information Security Awareness Training ” – Frequentis Group	86%	84%	79%
Successful completion of “Information Security Awareness Training” – Frequentis AG	84%	91%	92%
Successful completion of “ Personal Data Protection ” training – Frequentis Group	92%	83%	99%
Successful completion of “Personal Data Protection” training – Frequentis AG	93%	91%	95%
No. of Group-wide Security Community events	11	13	12
Average no. of participants	25	22	20
Proven IT service outages due to cyberattacks	0	0	0

GRI 403-5
GRI 403-9

GRI content index

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

[GRI 102-55](#)

Name of standard	No.	Topic-specific disclosure	Page no.
GRI 102: General Disclosures	102-1	Name of the organization	64
	102-2	Activities, brands, products, and services	64, 66
	102-3	Location of headquarters	64
	102-4	Location of operations	64
	102-5	Ownership and legal form	65
	102-6	Markets served	65, 66
	102-7	Scale of the organization	65
	102-8	Information on employees and other workers	113
	102-10	Significant changes to the organization and its supply chain	64
	102-11	Precautionary principle or approach	87, 104, 110
	102-12	External initiatives	70
	102-13	Membership of associations	70
	102-14	Statement from senior decision-maker	60
	102-15	Key impacts, risks, and opportunities	61, 77, 87, 93, 99
	102-16	Values, principles, standards, and norms of behavior	93
	102-17	Mechanisms for advice and concerns about ethics	94
	102-18	Governance structure	69
	102-19	Delegating authority	69
	102-20	Executive-level responsibility for economic, environmental, and social topics	69
	102-21	Consulting stakeholders on economic, environmental, and social topics	69, 72
	102-40	List of stakeholder groups	71
	102-42	Identifying and selecting stakeholders	71
	102-43	Approach to stakeholder engagement	72
	102-44	Key topics and concerns raised	74
	102-45	Entities included in the consolidated financial statements	63
	102-46	Defining report content and topic boundaries	62
	102-47	List of material topics	73
	102-48	Restatements of information	60, 62
	102-49	Changes in reporting	71, 74
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Name of standard	No.	Topic-specific disclosure	Page no.
GRI 102: General Disclosures	102-51	Date of most recent report	62
	102-52	Reporting cycle	62
	102-53	Contact point for questions regarding the report	63
	102-54	Claims of reporting in accordance with the GRI Standards	60, 62
	102-55	GRI content index	62, 119
	102-56	External assurance	62
GRI 204: Procurement Practices 2016	204-1	Proportion of spending on local suppliers	117
GRI 205 Anti-Corruption 2016	205-1	Operations assessed for risks related to corruption	94, 117
	205-2	Communication and training about anti-corruption policies and procedures	93, 94
	205-3	Confirmed incidents of corruption and actions taken	93
GRI 206: Anti-Competitive Behavior 2016	206-1	Legal actions for anti-competitive behavior, anti-trust and monopoly practices	93
GRI 301: Materials 2016	301-2	Recycled input materials used	88
	301-3	Reclaimed products and their packaging materials	88
GRI 302: Energy 2016	302-1	Energy consumption within the organization	89, 115
	302-2	Energy consumption outside of the organization	89, 115
	302-3	Energy intensity	89, 115
	302-4	Reduction of energy consumption	89
GRI 303: Water and Effluents 2018	303-1	Interactions with water as a shared resource	90
	303-2	Management of water discharge-related impacts	90
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	87
	304-2	Significant impacts of activities, products, and services on biodiversity	87
GRI 305: Emissions 2016	305-1	Direct (Scope 1) GHG emissions	91, 115
	305-2	Energy indirect (Scope 2) GHG emissions	91, 115
	305-3	Other indirect (Scope 3) GHG emissions	91, 115
	305-5	Reduction of GHG emissions	88, 91, 115
GRI 306: Waste 2020	306-1	Waste generation and significant waste-related impacts	89
	306-2	Management of significant waste-related impacts	89
	306-3	Waste generated	115
	306-4	Waste diverted from disposal	89
GRI 307: Environmental Compliance 2016	307-1	Non-compliance with environmental laws and regulations	90

Name of standard	No.	Topic-specific disclosure	Page no.
GRI 308: Supplier Environmental Assessment 2016	308-1	New suppliers that were screened using environmental criteria	97, 98
GRI 401: Employment 2016	401-1	New employee hires and employee turnover	113
	401-3	Parental leave	113, 114
GRI 403: Occupational Health and Safety 2018	403-1	Occupational health and safety management system	68
	403-2	Hazard identification, risk assessment, and incident investigation	78
	403-3	Occupational health services	80
	403-5	Worker training on occupational health and safety	118
	403-6	Promotion of worker health	79
	403-9	Work-related injuries	118
GRI 404: Training and Education 2016	404-2	Programs for upgrading employee skills and transition assistance programmes	81, 82
	404-3	Percentage of employees receiving regular performance and career development reviews	81
GRI 405: Diversity and Equal Opportunity 2016	405-1	Diversity of governance bodies and employees	83, 114
GRI 406: Non-discrimination	406-1	Incidents of discrimination and corrective actions taken	83
GRI 412: Human Rights Assessment 2016	412-2	Employee training on human rights policies or procedures	96, 117
GRI 413: Local Communities 2016	413-1	Operations with local community engagement, impact assessments, and development programs	88
GRI 414: Supplier Social Assessment 2016	414-1	New suppliers that were screened using social criteria	97, 98
GRI 415: Public Policy 2016	415-1	Political contributions	98
GRI 418: Customer Privacy 2016	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	105
GRI 419: Socioeconomic Compliance 2016	419-1	Non-compliance with laws and regulations in the social and economic area	93

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 SDGs as a guide for the future expansion and optimisation of its environmental and socio-economic performance.

Frequentis' wide-ranging socio-economic activities, which focus on the social aspects of environmental impact, are guided by all 17 SDGs.



In the following overview, the SDGs to which Frequentis contributes through its long-term environmental objectives are shown in colour.



EU Taxonomy

When publishing its non-financial report 2021, Frequentis is required to make disclosure in accordance with 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 of 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 Non-financial Reporting Directive (future CSRD), Frequentis is required by Article 8 of the EU Taxonomy 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. Additionally, 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 Commission has defined technical screening criteria for two of the six environmental objectives, namely "climate change mitigation" and "climate change adaptation".

As the first step in fulfilment of the requirements of the EU Taxonomy, Frequentis analysed the list of economically sustainable economic activities to identify those that are applicable within the Frequentis Group. The definitions of individual economic activities set out in Annex I and Annex II to the EU Taxonomy were examined, compared with Frequentis' business lines, business activities, and individual measures, and then evaluated. As the next step, the data required for the key performance indicators (turnover, CapEx, OpEx) were compiled in the IT systems in close collaboration with the individual departments.

In the first year of application, the EU Commission permits an exemption (Article 10 of the Delegated Act of 6 July 2021): companies are only required to disclose the proportion of taxonomy-eligible and taxonomy non-eligible economic activities in total turnover, CapEx and OpEx. Application of the technical screening criteria is only mandatory from the 2022 reporting period.

The taxonomy-eligible and taxonomy non-eligible economic activities are presented below for the Frequentis Group and Frequentis AG:

	Turnover in EUR thousand	Proportion of turnover in %	CapEx in EUR thousand	CapEx in %	OpEx in EUR thousand	OpEx in %
Frequentis Group						
Taxonomy-eligible activities	11,070.34	3.32%	12,762.19	96.42%	18,830.09	99.98%
Taxonomy non-eligible activities	322,455.40	96.68%	474.35	3.58%	3.34	0.02%
Total	333,525.74	100.00%	13,236.54	100.00%	18,833.43	100.00%

Frequentis AG	Turnover in EUR thousand	Proportion of turnover in %	CapEx in EUR thousand	CapEx in %	OpEx in EUR thousand	OpEx in %
Taxonomy-eligible activities	11,427.84	4.79%	3,708.25	100.00%	14,814.97	100.00%
Taxonomy non-eligible activities	227,159.14	95.21%	0.00	0.00%	0.00	0.00%
Total	238,586.98	100.00%	3,708.25	100.00%	14,814.97	100.00%

The low proportion of taxonomy-eligible activities relative to total turnover compared with the other two KPIs (CapEx and OpEx) is due to the fact that the economic activities in category “8.2 Computer programming, consultancy and related activities” in Annex II (economic objective: climate change adaptation) cannot be used in the calculation of the turnover KPI. However, the majority of the activities of Frequentis AG and the Frequentis Group are in this category.

Turnover KPI

The total turnover used for this KPI comprises the revenues recognised in accordance with IFRS 15 in the consolidated annual financial statements as at 31 December 2021 ([↗ 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 2021.

The taxonomy-eligible activities applicable for turnover relate principally to the economic activity “8.1 Data processing, hosting and related activities”.

In accordance with the provisions of the EU Taxonomy, for the objective “climate change adaptation”, only activities classified as “enabling” activities may be included in the calculation of the turnover KPI. “Enabling” activities are activities that directly enable other activities to make a substantial contribution to climate change adaptation: Although Frequentis’ principal business model and thus the majority of its revenue-generating activities would fall within the definition of economic activity “8.2 Computer programming, consultancy and related activities” in Annex II, these revenues cannot be recognised as taxonomy-eligible because they are “adaptation solutions” and economic activity 8.2 is not classified as an “enabling” activity.

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 2021 ([↗ 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 2021, prepared in accordance with the Austrian Commercial Code (UGB).

The taxonomy-eligible CapEx mainly relates to economic activities “8.1 Data processing, hosting and related activities” and “8.2 Computer programming, consultancy and related activities” in Annex II. Unlike turnover, based on the Commission Delegated Regulation (Annex I C(2021) 4987), capital expenditure and operating expenditure for adaptation solutions are classified as taxonomy-eligible.

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, leasing, maintenance, and repairs incurred in 2021.

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 activities "8.1 Data processing, hosting and related activities" and "8.2 Computer programming, consultancy and related activities".

Independent limited assurance report on the consolidated Non-Financial Report

The subsequent independent assurance report in the English language is a translation provided for informational purposes only. The German text of the signed confirmation report, which refers to the German version of the non-financial reporting 2021, is the only legally binding version. This English translation has no legal effect. More specifically, it cannot be used for interpreting the German version of the independent assurance report.

We have performed a limited assurance engagement on the consolidated non-financial report of Frequentis AG (referred to as "the Company"), Vienna.

Responsibility of the legal representatives

The legal representatives of the Company are responsible for the proper preparation of the consolidated non-financial report in accordance with the requirements of the Sustainability and Diversity Improvement Act (NaDiVeG) in section 267a of the Austrian Commercial Code (UGB).

The legal representative`s responsibility is to select and apply appropriate sustainability reporting methods and to make accounting estimates that are reasonable in the circumstances. Furthermore the legal representative`s responsibility includes designing, implementing and maintaining systems and processes relevant to the preparation and fair presentation of sustainability reporting that are free from material misstatement, whether due to fraud or error. This also includes the preparation of adequate documentation and the establishment of internal controls.

Responsibility of the auditor

Our responsibility is to express an opinion, based on our audit procedures and the evidence we have obtained, as to whether any matters have come to our attention that cause us to believe that the consolidated non-financial report of the Company as of 31 December 2021 is not, in all material respects, in accordance with the requirements of the Sustainability and Diversity Improvement Act (NaDiVeG) in section 267a UGB.

We conducted our audit in accordance with Austrian generally accepted standards for other audits (KFS/PG 13) and the International Standard on Assurance Engagements (ISAE 3000 (Revised)) applicable to such engagements. These standards require that we comply with ethical requirements, including independence requirements, and plan and perform the engagement, under consideration of materiality, to express our conclusion with limited assurance.

In a limited assurance engagement, the audit procedures performed are less extensive in comparison to a reasonable assurance engagement, and consequently less assurance is obtained.

The procedures selected depend on the auditor's judgement and included in particular the following activities:

- Interviewing 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 re-ported boundaries of the Company;
- Risk assessment, including a media analysis, on relevant information about the Company's sustainability performance during the reporting period;
- Interviews with personnel at group level responsible for identifying, consolidating and performing in-ternal control activities on data;
- Assess the design and implementation of systems and processes for identifying, processing and monitoring the sustainability performance data and indicators included in the scope of the audit, including the consolidation of the 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 in the quantitative data;
- Assessing whether the requirements under section 267a UGB have been adequately addressed;
- Assessing the overall presentation of the disclosures by critically reading the non-financial report.

The following was not the subject of our assignment

- the review of prior year information, forward-looking information or data from external studies
- the verification of references to GRI standards
- the verification of the information in accordance with Article 8 of the EU Taxonomy Regulation (2020/852);

The subject matter of our engagement is neither an audit of financial statements nor a review of financial statements. Likewise, neither the detection and clarification of criminal offences, such as embezzlement or other acts of breach of trust and administrative offences, nor the assessment of the effectiveness and efficiency of the management is the object of our engagement.

Summary assessment

Based on our audit procedures and the evidence obtained, nothing has come to our attention that cause us to believe that the consolidated non-financial report for the financial year 2021 of the Company is not prepared, in all material respects, in accordance with the requirements of the Sustainability and Diversity Improvement Act (NaDiVeG) in section 267a of the Austrian Commercial Code (UGB).

Limitation of use

We consent to the publication of our audit certificate together with the non-financial report. The report does not form the basis for any reliance by third parties on its contents. The report is not intended to be relied upon by third parties in making (financial) decisions. Claims of third parties can therefore not be derived from it. Our responsibility is solely to the Company.

Terms of engagement

With regard to our responsibility and liability towards the company and towards third parties, point 7 of the General Conditions of Contract for the Public Accounting Professions applies.

Vienna, 14 March 2022



BDO Austria GmbH

Wirtschaftsprüfungs- und Steuerberatungsgesellschaft

Mag. Gerhard Posautz
Certified Auditor

Mag. Gerhard Fremgen
Certified Auditor

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 (2) and Section 267a (2) 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, 14 March 2022



Norbert Haslacher
Chairman of the Executive Board



Peter Škerlan
Member of the Executive Board



Hermann Mattanovich
Member of the Executive Board



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Economic environment

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

The International Monetary Fund (IMF) published its World Economic Outlook Update in January 2022.¹ Despite the pandemic, it estimates that global GDP grew by 5.9% in 2021 and is forecasting growth of 4.4% in 2022.

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

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

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

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

¹ www.imf.org/en/Publications/WEO/Issues/2022/01/25/world-economic-outlook-update-january-2022

² www.imf.org/en/News/Articles/2022/03/10/tr031022-transcript-of-imf-media-roundtable-on-ukraine

Business performance

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

Significant events in 2021

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

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

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

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

COVID-19 pandemic

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

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

Impact on revenues and expenses

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

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

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

Measures taken

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

For details see [➔ Consolidated financial statements](#) as at 31 December 2021, note 2.

Order intake

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

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

Highlights of order intake in the Air Traffic Management segment

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

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

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

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

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

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

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

Highlights of order intake in the Public Safety & Transport segment

In the Public Safety & Transport segment, the Public Safety business domain is increasing its market leadership with the emergency services in Germany thanks to an order to supply a police communications system for the federal state of Saarland. Furthermore, the cities of Lübeck and Rostock have placed an order to replace the emergency call and radio system for their control centres.

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

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

Orders on hand

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

Revenues and operating performance

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

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

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

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

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

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

Earnings

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

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

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

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

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

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

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

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

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

Employees

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

Asset and capital structure

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

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

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

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

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

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

Cash flow

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

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

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

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

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

Business relations with related parties

For details see [➤ Consolidated financial statements](#) as at 31 December 2021, note 38.

Segment performance

Air Traffic Management / ATM

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

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

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

Highlights from the operating business

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

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

Public Safety & Transport / PST

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

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

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

Revenues in the Public Safety & Transport segment increased by 18.0% to EUR 113.6 million in 2021 as a result of successful product acceptances (2020: EUR 96.3 million). EBIT improved to EUR 16.6 million (2020: EUR 12.3 million), mainly due to higher-margin projects.

Highlights from the operating business

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

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

Research & development

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

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

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

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

Non-financial information

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

Consolidated corporate governance report

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

Opportunity and risk management

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

The Frequentis Group therefore regularly undertakes an extensive internal evaluation of all relevant risks and opportunities. These are compiled in a Group-wide risk report, which is discussed by an extended management circle. As well as exploiting opportunities, Frequentis enters into risks with a view to enhancing the value of the company. To ensure early identification and proactive management of risks, the Frequentis Group has a sound risk management policy, a Group-wide risk management system, an extensive internal control (ICS) system, and an Internal Audit department. Breaches of compliance can constitute a considerable risk for any company. To simplify the communication channels that can be used internally and externally to report such breaches, Frequentis has established a whistleblower system at Group level. This is available both via the company's website at www.frequentis.com/en/whistleblowing and via the intranet. This meets the requirements of EU Directive 2019/1937 on the protection of persons who report breaches of Union law.

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

Project management as an operational mainstay

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

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

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

Evaluation of risk management

As part of the audit of the financial statements, in March 2022, BDO Austria GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft confirmed the functioning and appropriateness of Frequentis' risk management system in accordance with C rule no. 83 of the Austrian Code of Corporate Governance.

Overview of risks

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

Risk relating to the COVID-19 (coronavirus) pandemic

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

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

Risks relating to the (macro)economic and political environment

Dependence on political and economic conditions.

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

Legitimate/illegitimate utilisation or unavailability of bank guarantees.

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

Exercise of political influence and protectionism.

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

Risks relating to Frequentis' industry and business

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

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

Fluctuations in earnings due to the impact of major projects.

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

Impact of climate change.

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

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

Cyberattacks.

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

Changes in technological standards.

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

Progressive customer concentration.

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

Cost overruns.

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

Loss of established customers.

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

Defending market positions against competition.

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

Long-term commitments.

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

Non-performance of payment obligations by customers.

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

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

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

Growth through acquisitions.

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

Further risks in this area

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

Regulatory, legal, and tax risks

Legal risks relating to public tender contracts.

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

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

Statutory provisions that define a proportion of domestic content.

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

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

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

Faulty performance by subcontractors.

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

Further risks in this area

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

Internal control system (ICS) for the accounting process

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

Structure of accounting

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

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

Consolidation

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

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

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

Controls

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

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

Information pursuant to Section 243a (1) UGB

1. The share capital of Frequentis AG was EUR 13,280,000.00 as at 31 December 2021 and was divided into 13,279,999 no-par-value bearer shares, all of which are equal in all respects, and one registered share with restricted transferability ("share no. 1"). The holder of share no. 1, Johannes Bardach, is authorised by article 5.1.2 of the articles of association to appoint one third of the members of the Supervisory Board (i.e. one third of the maximum number of shareholder representatives set out in article 5.1.1 of the articles of association).

As at 31 December 2021, the company held 15,500 treasury shares, which was 0.12% of the share capital. In conformance with Section 65 (5) of the Austrian Companies Act (AktG), the treasury shares do not confer any rights, especially voting rights, on the company.

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

3. As at 31 December 2021, Frequentis Group Holding GmbH had a direct stake of over 50.0% in Frequentis AG and was thus the direct majority shareholder of Frequentis AG. B&C Holding Österreich GmbH held a stake of over 10.0% in Frequentis AG as at 31 December 2021.

4. As at 31 December 2021, share no. 1 was held by Johannes Bardach. This share has the rights set out in subsection 1 above.

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

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

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

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

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

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

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

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

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

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

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

The Executive Board was authorised by the Extraordinary General Meeting of 20 September 2019, pursuant to Section 65 (1) No. 4 and No. 8, to purchase, via the stock exchange or off-market, bearer shares in the company in an amount of up to 10% of the company's share capital during a period of 30 months from the date of the resolution by the General Meeting, whereby the minimum consideration per share 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. Based on this authorisation, 15,500 shares (0.12% of the share capital) was purchased in 2021.

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

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

Outlook

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

The products supplied by Frequentis are part of the safety-critical infrastructure, in other words, the essential infrastructure of the relevant countries. This infrastructure always has to be available and ready for operation – irrespective of the number of flights/flight movements or how many times the police, fire service, and emergency rescue services are deployed. That has not changed. The business model once again demonstrated its sustained resilience.

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

Acquisitions

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

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

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

Long-term vision

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

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

Forecast for 2022

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

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

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

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

Vienna, 14 March 2022

Consolidated financial statements

as at 31 December 2021

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Consolidated income statement

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

Consolidated statement of comprehensive income

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

Consolidated statement of financial position

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

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

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

Consolidated cash flow statement

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

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

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

Consolidated statement of changes in shareholders' equity

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

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

Notes to the consolidated financial statements

1. General information

Reporting

The consolidated financial statements of Frequentis AG for the 2021 financial year have been prepared in accordance with the provisions of the International Financial Reporting Standards (IFRS) as adopted by the European Union. Similarly, all interpretations of the International Financial Reporting Interpretations Committee (IFRIC) that were mandatory for 2021 have been applied.

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

Information on the company

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

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

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

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

The reporting date is 31 December 2021.

The financial year is 1 January to 31 December 2021.

In the reporting period, the Executive Board comprised:

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

In the reporting period, the Supervisory Board comprised:

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

The consolidated financial statements were approved by the Executive Board on the date of signature, subject to approval by the Supervisory Board at its meeting on 30 March 2022.

Consolidated group

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

The Group controls an entity if it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date when control ends.

3 (2020: 3) foreign companies and 2 (2020: 2) domestic companies are included in the consolidated financial statements by applying the equity method. The reporting date for all companies included in the financial statements is 31 December.

a) Fully consolidated Austrian subsidiaries

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

b) Fully consolidated subsidiaries in Europe

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

c) Fully consolidated subsidiaries in the Americas

- Frequentis California Inc., Columbia (100%)
- Frequentis Canada ATM Ltd., Gatineau (100%)
- Frequentis Canada Ltd., Ottawa (100%)
- Frequentis Defense Inc., Columbia (100%)
- Frequentis do Brasil Assessoria, Serviços e Comércio de Sistemas de Informação e Comunicação Ltda., São Paulo (100%)
- Frequentis USA Inc., Columbia (100%)

d) Fully consolidated subsidiaries in Asia

- Frequentis Middle East Limited, Abu Dhabi (100%)
- Frequentis (Shanghai) Co. Ltd., Shanghai (100%)
- Frequentis Singapore Pte. Ltd., Singapore (100%)

e) Fully consolidated subsidiaries in Australia/Pacific

- C4i Pty Ltd, Melbourne (100%)
- Frequentis Australia Holding Pty Ltd, Hendra (100%)
- Frequentis Australasia Pty Ltd, Hendra (100%)

f) Companies accounted for using the equity method

- AIRlabs Austria GmbH, Graz (18%)
- AIRNAV Technology Services Inc., Iloilo (40%)
- GroupEAD Europe S.L., Madrid (28%)
- Mission Embedded GmbH, Vienna (20%)
- Nemergent Solutions S.L., Bilbao (15%)

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

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

Changes to the consolidated group

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

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

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

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

Harris Orthogon GmbH

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

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

The contractually agreed purchase price comprised the following components:

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

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

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

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

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

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

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

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

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

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

Since the acquisition, Orthogon has contributed revenues of EUR 6,411 thousand and EBIT of EUR 692 thousand to the consolidated figures of the Frequentis Group. Had the acquisition been completed at the beginning of the 2021 financial year, Orthogon would have contributed revenues of EUR 8,487 thousand and EBIT of EUR -502 thousand to the consolidated figures of the Frequentis Group.

Harris ATC Solutions business unit of Harris Canada Systems Inc.

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

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

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

The contractually agreed purchase price comprised the following components:

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

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

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

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

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

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

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

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

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

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

Assumption of the NATS contract

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

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

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

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

Harris C4i Pty. Ltd.

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

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

The contractually agreed purchase price comprised the following components:

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

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

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

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

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

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

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

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

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

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

Since the acquisition, C4i has contributed revenues of EUR 10,091 thousand and EBIT of EUR 1,528 thousand to the consolidated figures of the Frequentis Group. Had the acquisition been completed at the beginning of the 2021 financial year, C4i would have contributed revenues of EUR 22,338 thousand and EBIT of EUR 1,950 thousand to the consolidated figures of the Frequentis Group.

Other changes to the consolidated group

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

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

2. Accounting policies

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

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

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

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

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

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

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

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

New and amended standards and interpretations

When preparing the consolidated financial statements, the following amendments to existing IAS/IFRS standards and interpretations, as well as the new standards and interpretations were applied, insofar as they had been endorsed by the European Union by 31 December 2021 and were effective at that date:

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

Where applicable, the above standards and amendments were applied in these consolidated financial statements. The effects of these changes on the financial statements were insignificant. The COVID-19-related amendments to IFRS 16 (rent concessions) were not utilised as there were no rent concessions.

In addition, some of the following new and amended standards had been endorsed by the EU, but were not mandatory for the 2021 financial year. The Frequentis Group did not adopt these standards early on a voluntary basis, even if they had already been endorsed by the EU.

	Newly amended IFRSs	Endorsement by the EU	Effective date	Significant effects
IAS 16	Property, Plant and Equipment – Proceeds before Intended Use	28 June 2021	2022	None
IAS 37	Onerous Contracts – Cost of Fulfilling a Contract	28 June 2021	2022	None
IFRS 3	Reference to the Conceptual Framework	28 June 2021	2022	None
IFRS 17	Insurance Contracts	19 November 2021	2023	None
IAS 1	Classification of Liabilities as Current or Non-Current	Open	2023	None
IAS 1	Disclosure of Accounting Policies	2 March 2022	2023	None
IAS 8	Accounting Policies; Changes in Accounting Estimates and Errors	2 March 2022	2023	None
IAS 12	Deferred Tax related to Assets and Liabilities arising from a Single Transaction	Open	2023	None
	Annual Improvements to IFRS Standards (2018 – 2020 Cycle)	28 June 2021	2022	None

Correction of errors

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

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

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

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

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

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

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

Impact of the COVID-19 pandemic

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

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

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

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

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

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

Intangible assets, property, plant and equipment

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

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

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

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

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

Goodwill

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

Impairment losses

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

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

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

If an impairment test identifies the need to recognise an impairment loss, the corresponding expense is recognised in the line item impairment loss on goodwill.

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

Investments accounted for at equity (associated companies)

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

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

Leases

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

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

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

In accordance with IFRS 16, the lease term is essentially the non-cancellable period of the lease. In addition, options to extend or terminate the lease are taken into account.

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

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

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

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

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

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

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

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

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

In the event of remeasurement of the lease liability, the carrying amount of the right-of-use asset is adjusted by the same amount or the adjustment is recognised in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

The Frequentis Group has decided not to recognise right-of-use assets and lease liabilities for leases where the underlying leased assets are of low value and for short-term leases. In addition, the option to exclude intangible assets from the scope of IFRS 16 is used. The Frequentis Group recognises the lease payments relating to such leases as expense on a straight-line basis over the term of the lease.

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

Financial instruments

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

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

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

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

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

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

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

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

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

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

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

In the Frequentis Group, no instruments were allocated to this category in either 2021 or 2020.

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

All financial assets that are not measured at amortised cost or at FVOCI are measured at FVTPL. This comprises all derivative financial assets that are not designated as a cash flow hedge in a hedging relationship. In the 2021 and 2020 financial years, the Group did not hold any financial assets designated at FVTPL.

Financial liabilities are classified and measured at amortised cost or at fair value through profit or loss (FVTPL). A financial liability is classified at FVTPL if it is held for trading, is a derivative, or if the derivative is designated as a hedging instrument at the date of initial recognition.

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

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

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

Derivatives are measured at fair value, both at initial recognition and subsequently. Any changes in the fair value are recognised in profit or loss, unless the derivatives are designated in a hedging relationship classified as a cash flow hedge.

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

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

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

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

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

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

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

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

Inventories

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

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

IFRS 15 Revenue from Contracts with Customers

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

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

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

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

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

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

Employee benefit obligations

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

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

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

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

Share-based payment

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

Provisions

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

Research and development costs

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

Development projects comprise expenditures that serve to apply theoretical knowledge for technical and commercial use. If the criteria for recognition as an intangible asset pursuant to IAS 38.21 are met, the directly allocable development costs are recognised as an intangible asset; otherwise, the development costs are expensed as incurred. In the reporting period, as well as in the previous year, the technical feasibility of hardware and software development projects either could not be assessed or the research and development phases could not be clearly distinguished. Moreover, confirmation of technological feasibility and commercial usability is generally only obtained shortly before projects are ready for the commercial market. Therefore, the criteria for recognition as an asset were not met in either 2021 or 2020.

Grants and subsidies

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

Income taxes

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

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

The applicable income tax rates for foreign Group companies were between 16% and 33% in the reporting period (2020: between 7% and 36%).

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

Deferred taxes are not recognised for:

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

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

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

Significant estimates and exercise of discretion

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

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

- a) The Frequentis Group holds less than 20% of the shares and voting rights of two associated companies, but classifies its influence as significant as it is represented on the management of these companies (see Note 19. Investments accounted for at equity [associated companies]).
- b) When assessing the term of leases, especially real estate leases, the Frequentis Group takes into account any extension or termination options where it is reasonably certain that they will be exercised.

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

- a) Useful life of non-current assets: Property, plant and equipment and purchased intangible assets are recognised at the acquisition or manufacturing cost and depreciated/amortised over their useful life using the straight-line method. Factors such as wear and tear, obsolescence, technical standards, and contract duration are taken into account when determining the useful life.
- b) Estimated impairment of goodwill: The Frequentis Group tests goodwill for impairment annually. The recoverable amount of cash-generating units is determined by calculating their value in use. This is based on corresponding planning calculations, which are naturally based on estimates and assumptions. See Note 18 for information on the assumptions and sensitivity analyses used in the goodwill impairment test.
- c) Revenue is recognised over time based on the progress towards satisfaction of the performance obligation using the input-based method (cost-to-cost method). Accounting for contracts realised over time is based on estimated contract costs, the achievable contract revenue, and the risks associated with the contract. These estimates are regularly reviewed and revised. Although the estimates are made using all information available at the reporting date, changes may occur. These changes may affect both the revenue recognised and the carrying amounts of contract assets.

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

- d) The recognition of provisions for onerous contracts is subject to estimates of the expected contract costs and contract results. These are forecast on the basis of historical experience and current information as at the reporting date.

- e) Post-employment benefit obligations are measured using various parameters such as the discount rate and salary increases. Changes in these parameters may result in a change in the obligation recognised. The sensitivity of post-employment benefit obligations is outlined in Note 31. Non-current provisions.
- f) The recognition of deferred tax assets requires that sufficient taxable income will be generated in the future against which the tax credits and loss carryforwards can be utilised. The assessment as to whether deferred taxes can be recognised is subject to estimates of various factors. Tax matters are subject to uncertainties regarding their assessment by the tax authorities, therefore it cannot be precluded that in individual cases they may reach a different conclusion than the Frequentis Group.
- g) In connection with the acquisition of the shares in ATRiCS Advanced Traffic Solutions GmbH, in addition to the basic purchase price, an earn-out payment was agreed. This is dependent on the achievement of certain earnings targets, the level of working capital on 31 December 2024, and the net cash/debt position as at 31 December 2024 (all parameters based on German accounting standards) and which are accounted for as additions to or deductions from the agreed target value. To measure the earn-out liability as at 31 December 2021, assumptions were made on the development of these items. For further information, see Note 33. Other liabilities. If the actual development differs significantly from the assumptions made, this may impact profit or loss because the liability is subsequently measured at fair value through profit or loss.
- h) The liability for the put option relating to non-controlling interests corresponds to the enterprise value less net financial debt of ELARA Leitstellentechnik GmbH. The enterprise value is determined using a multiples-based valuation method and is based on the average revenues and EBIT of the last two annual financial statements immediately preceding exercise of the option. To measure the liability, assumptions were made about the development of these items. For further information, see Note 33. Other liabilities. Significant changes in the underlying assumptions do not impact profit or loss because the changes are recognised in equity.
- i) Impairment loss on the deposits at Commerzialbank Mattersburg im Burgenland AG: As at 31 December 2020 and 31 December 2021, all claims against Commerzialbank Mattersburg were fully impaired because, based on the information on the insolvency proceedings, it can be assumed that the recovery quota of the insolvency estate will not be economically relevant. Due to the complex nature of the lawsuits filed by Frequentis in 2020, they are currently not at a stage that justifies recognition of a claim in the financial statements. Depending on the further course of these proceedings, positive effects on earnings may arise if Frequentis is awarded a quota of the insolvency estate or if its claims for compensation in pending proceedings are successful.
- j) Climate change and the associated warming will result in a number of changes. The global increase in temperatures and extreme weather events such as storms, exceptionally heavy rainfall, including floods, and droughts and heatwaves are adversely affecting many people's livelihoods. Coastal areas are exposed to an additional risk from rising sea levels. Many cities in south and south-east Asia and Australia are located directly on the coast. Frequentis has companies in these regions.

Frequentis could be indirectly affected by climate change – on the procurement market as a result of supply chain delays and disruption and on the sales side by problems due to increasing social and civil conflicts. As a supplier of communication and information systems for control centres in the safety-critical sector, Frequentis' business model is not currently affected by the impact of climate change but the mid-term effects cannot yet be estimated. Climate change did not have any significant effect on the financial statements for 2021.

Notes to the consolidated income statement

3. Segment report

Operating segments

- Air Traffic Management
- Public Safety & Transport

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

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

Data on the operating segments

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

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

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

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

Details of Group-wide data

Neither in 2021, nor in 2020, did the Frequentis Group generate more than 10% of its total revenues with any single customer.

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

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

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

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

Regional breakdown of non-current assets

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

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

4. Revenues

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

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

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

Revenues are recognised using the input-based method (cost-to-cost method). Contract assets are only recognised if they exceed the associated advance payments from customers. In the reporting period, contract assets were reduced by EUR 67 thousand (2020: increased by EUR 66 thousand). The business combination resulted in additions of EUR 8,498 thousand to contract assets from contracts with customers (see Note 1. General information – Changes to the consolidated group). The reduction in other contract assets is the net result of a large number of newly commenced and invoiced projects.

In the case of maintenance contracts, the customer generally receives the benefits as the performance obligation is satisfied. Revenue is recognised over time. Exceptions from this rule are certain services (e.g. consulting and repairs) with a short lead time or performance period, and orders for spare parts or small parts where the revenue is recognised at a point in time. The revenues from these orders amounted to EUR 14,612 thousand in the reporting period (2020: EUR 11,185 thousand).

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

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

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

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

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

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

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

The transaction price of unsatisfied or only partially satisfied performance obligations was EUR 467.9 million (31 December 2020: EUR 427.6 million) and corresponds to the orders on hand in the Frequentis Group at the reporting date. It is expected that revenue of approximately EUR 261.8 million will be recognised in 2022 and revenue of EUR 206.1 million will be recognised in 2023 and subsequent years. The expected timing of revenue recognition is based on the expected progress towards satisfaction of the performance obligation.

5. Own work capitalised

The expenses capitalised in 2021 comprise EUR 92 thousand (2020: EUR 216 thousand) including, among other things, expenses for self-generated internal demonstration and test systems.

6. Other operating income

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

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

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

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

7. Cost of materials and purchased services

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

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

8. Personnel expenses

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

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

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

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

9. Other operating expenses

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

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

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

The loss allowances contain EUR 916 thousand (2020: EUR 382 thousand) for receivables and EUR -8 thousand (2020: EUR -4 thousand) for contract assets. These are not presented separately in the income statement as the amount is insignificant.

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

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

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

11. Financial income

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

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

12. Financial expenses

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

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

13. Net change in impairment losses on financial assets

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

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

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

14. Income taxes

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

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

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

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

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

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

Deferred tax liabilities resulting from temporary differences in connection with investments in subsidiaries are not recognised if the date of reversal of the temporary differences can be controlled by the Frequentis Group and it is probable that the temporary differences will not be reversed in the near future. Such temporary differences for which no deferred tax liabilities are recognised amounted to EUR 3,914 thousand (2020: EUR 2,674 thousand).

As at the reporting date, the Frequentis Group had loss carryforwards totalling EUR 6,869 thousand (2020: EUR 16,603 thousand). Deferred taxes were recognised for loss carryforwards of EUR 4,694 thousand (2020: EUR 15,154 thousand) because it is probable that there will be future taxable income against which the Frequentis Group can offset the deferred tax assets. There is a 20-year time limit on the use of a tax loss carryforward of EUR 1,256 thousand. There is no time limit on use of the other loss carryforwards.

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

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

15. Earnings per share

Basic earnings per share are calculated by dividing the result for the period attributable to equity holders of Frequentis AG by the weighted average number of shares outstanding in the reporting period. In the reporting period, the weighted average number of shares was 13,269,358 (2020: 13,252,240).

Diluted earnings per share are calculated by dividing the result for the period attributable to the equity holders of Frequentis AG by the weighted average number of outstanding shares in the reporting period, adjusted in each case by the dilutive effect of the share-based payment of 31,000 shares. The average weighted number of shares and options was 13,307,220 (2020: 13,273,701).

Notes to the consolidated statement of financial position

16. Property, plant and equipment

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

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

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

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

17. Intangible assets

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

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

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

18. Goodwill

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

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

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

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

The impairment test in accordance with IAS 36 was based on detailed plans for earnings, the statement of financial position, and capital expenditure for all cash-generating units for the next three years. These are prepared annually as part of the Group-wide budget planning process, taking into consideration the current business situation. For periods after the budget planning period, a long-term growth rate of 1% (2020: 1%) was determined and used to forecast future cash flows.

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

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

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

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

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

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

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

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

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

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

19. Investments accounted for at equity (associated companies)

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

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

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

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

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

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

The next table contains summarised financial information on this company as at the last reporting date (31 December 2020):

GroupEAD Europe S.L.	31 Dec. 2020 EUR thousand	31 Dec. 2019 EUR thousand
Non-current assets	264	285
Current assets	2,870	3,043
Non-current liabilities	0	0
Current liabilities	940	1,260
Net assets (100%)	2,194	2,068
Frequentis Group's share of net assets (28%)	614	579
Dividend paid in the following year	-124	-88
Carrying amount of the stake in the associated company	491	491
Revenues	7,159	7,546
Profit from continuing operations (100%)	642	516
Other comprehensive income (100%)	0	0
Total comprehensive income (100%)	642	516
Total comprehensive income (28%)	180	144
Earnings included in the prior year (28%)	-56	-56
Share of earnings for the following year included due to dividends received (28%)	56	56
Frequentis Group's share of total comprehensive income	180	144

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

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

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

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

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

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

Nemergent Solutions S.L. operates in mission-critical services (3GPP), for example, MCPTT (mission-critical push-to-talk) via LTE. The Frequentis Group had previously worked on joint projects in the field of public transport and public safety, where Nemergent Solutions contributed technology for application services and end devices, i.e. mobile terminals for emergency services. This collaboration was strategically expanded and deepened because the LTE mobile communications standard offers new opportunities in safety-critical broadband communication.

The Frequentis Group has classified its influence as significant, despite the 15% shareholding, due to the significant level of management involvement in the associate.

The table shows the development of this investment:

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

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

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

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

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

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

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

The table shows the development of this investment:

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

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

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

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

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

20. Equity instruments

The equity instrument held in the reporting period was:

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

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

21. Time deposits, cash and cash equivalents

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

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

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

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

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

In accordance with IFRS 9, based on the expected credit loss (ECL) model, loss allowances were established at the date of recognition of the bank deposits on the basis of the expected potential credit losses. An expected credit loss of 0.04% was derived for another bank due to a poorer rating and higher balance as at 31 December 2021 and a loss allowance of EUR 9 thousand was calculated. Since the amount was not significant, it was not recognised in the reporting period and the loss allowance recognised in the previous year (EUR 6 thousand) was reversed.

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

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

22. Inventories

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

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

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

The finished goods are assemblies that are part of overall solutions for customers and can only be invoiced as distinct components of a contract with a customer in exceptional cases. The inventories result from optimisation of manufacturing batches (larger production batches reduce unit costs) and procurement lots, the management of a safety stock for maintenance obligations, and inventories for a major contract with a customer, where delivery and, in this case, invoicing at a point in time will occur in 2022. Merchandise comprises tangible assets, mainly components of future customer projects.

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

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

23. Trade accounts receivable

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

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

Trade accounts receivable contain non-current items totalling EUR 789 thousand (31 December 2020: EUR 915 thousand) that have to be recognised as current items in accordance with IAS 1.68.

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

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

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

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

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

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

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

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

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

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

Due to their insignificance, receivables from affiliated and associated companies in the amount of EUR 13 thousand (2020: EUR 17 thousand) are not included in the presentation of the structure of overdue trade accounts receivable.

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

Since most customers are in the public sector or are large international companies, the COVID-19 pandemic did not result in any defaults on receivables in the reporting period. Although longer payment terms have been agreed with some customers, due to its customer structure, the Frequentis Group does not expect an increase in defaults. However, since an increase in insolvencies is expected in 2022 and subsequent years, the Frequentis Group has defined a scale factor of 1.5, which is taken into consideration when calculating loss allowances pursuant to IFRS 9. This reflects the actual and forecast insolvency rates due to the COVID-19 pandemic. If a customer is granted a temporary extension of a payment deadline (which may be up to 60 days) due to the COVID-19 pandemic, the payment is still classified as overdue on the basis of the original due date.

24. Contract assets from contracts with customers

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

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

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

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

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

It is assumed that there are no relevant default risks for contract assets from contracts with customers. The impairment of contract assets recognised in the reporting period amounted to EUR 15 thousand (2020: EUR 23 thousand). The creditworthiness of customers is carefully reviewed, particularly in the case of orders for which the Group makes advance payments. These orders primarily relate to work for public authorities or major international companies.

Based on the sensitivity analysis, a 10% reduction in contract costs not yet incurred would increase contract assets by EUR 5,986 thousand (2020: EUR 5,239 thousand), while a 10% increase in contract costs not yet incurred would reduce contract assets by EUR 5,521 thousand (2020: EUR 4,770 thousand).

25. Contract costs

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

The development of capitalised contract costs is as follows:

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

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

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

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

26. Other current assets

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

27. Share capital and retained earnings

At the Annual General Meeting on 8 April 2019, the Executive Board was authorised, subject to the approval of the Supervisory Board, to increase the share capital of Frequentis AG by up to EUR 6 million up to 7 April 2024 by issuing up to 6 million new no-par-value bearer shares in one or more tranches in return for cash or payment in kind. The Executive Board was also authorised, subject to the approval of the Supervisory Board, to fully or partially exclude shareholders' subscription rights and, subject to the approval of the Supervisory Board, to define further details of the issue conditions (especially the issue price, type of contribution in kind, rights of the shares, exclusion of subscription rights, etc.) (authorised capital).

IPO in 2019

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

Capital increase in 2020

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

Treasury shares

At the Extraordinary General Meeting of Frequentis AG on 20 September 2019, the Executive Board was authorised, for a period of 30 months, to purchase shares in Frequentis AG pursuant to Section 65 (1) subsections 4 and 8 of the Austrian Companies Act (AktG), both via the stock market and outside the stock exchange, and to exclude the general selling possibilities of shareholders related to such purchase. Furthermore, the Executive Board was authorised to reduce the share capital by cancelling shares in Frequentis AG without a further resolution of the General Meeting.

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

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

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

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

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

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

At year-end 2021, the shareholder structure of Frequentis AG was as follows:

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

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

Dividend

The net profit of Frequentis AG stated in the individual financial statements as at 31 December 2021 is EUR 13,628 thousand (31 December 2020: net loss of EUR 10,542 thousand) and the accumulated profit is EUR 46,062 thousand (31 December 2020: EUR 34,808 thousand).

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

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

28. Reserves

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

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

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

29. Share-based payment

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

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

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

The service period for the fulfilment of the targets has been set at three years. The targets for the key indicators were set by the Supervisory Board. On the settlement date (at the earliest three years after the grant date), a maximum of 14,000 shares for the LTIP 2019 and 17,000 shares each for the LTIP 2020 and 2021 (gross, i.e., before deduction of taxes and fees) but no more than 200% of the beneficiary's annual gross base salary will be granted if the targets are fully achieved. Settlement is effected by transferring the number of shares corresponding to the net amount of the award to the respective securities account. Subject to the approval of the Supervisory Board, the settlement date is 30 April 2022 for the LTIP 2019, 30 April 2023 for the LTIP 2020, and 30 April 2024 for the LTIP 2021. The entitlement to the maximum number of shares arises at 100% target achievement. A lower target achievement level will result in a proportionate reduction in the entitlement. No shares will be allocated if target achievement is less than 50%.

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

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

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

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

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

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

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

Of the expected total future expense relating to the LTIP, the portion already earned as at the reporting date is recognised in shareholders' equity. This is based on the fair value on the grant date. The total expected expense for the LTIP obligation is measured at the fair value of the share relative to the share price on the date of the agreement, multiplied by the number of shares granted and the expected target achievement. In the reporting period, EUR 399 thousand (2020: EUR 184 thousand) including payroll-related costs was recognised in personnel expenses in the consolidated statement of comprehensive income and in shareholders' equity for the LTIPs.

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

30. Non-controlling interests

The non-controlling interests relate to the following subsidiaries:

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

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

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

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

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

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

*) excluding goodwill

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

	Amounts before intragroup elimination				Earnings attributable to non-controlling interests		
	Operating performance	Profit for the period	Other comprehensive income	Total comprehensive income	Profit for the period	Other comprehensive income	Total comprehensive income
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

	Amounts before intragroup elimination				Earnings attributable to non-controlling interests		
	Operating performance	Profit for the period	Other comprehensive income	Total comprehensive income	Profit for the period	Other comprehensive income	Total comprehensive income
2020							
ATRiCS Advanced Traffic Solutions GmbH	4,518	720	0	720	368	0	368
ELARA Leitstellentechnik GmbH	2,788	410	0	410	201	0	201
Frequentis DFS Aerosense GmbH	1,533	-16	0	-16	-5	0	-5
Secure Service Provision GmbH	2,971	540	0	540	108	0	108
Systems Interface Ltd.	3,116	-1,116	0	-1,116	-547	20	-527
team Technology Management GmbH	8,542	1,149	-6	1,143	563	-3	560
TEAM Technology Management GmbH	53	-55	0	-55	-41	0	-41
Total					647	17	664

31. Non-current provisions

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

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

Provisions for severance payments

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

The corresponding severance payments will result in outflows between 2022 and 2047.

Obligations for severance payments were measured using the following parameters:

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

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

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

The provisions for severance payments relate mainly to employees who joined the Austrian companies in the Frequentis Group before 31 December 2002 as a change in Austrian law led to a switch from defined benefit to defined contribution severance payments on 1 January 2003. The new regulation applies to employees who took up employment with the Group after 31 December 2002. For these employees, the Group pays a monthly contribution to an external post-employment benefit plan which has to guarantee the severance payments, so the Group has no severance payment obligations for these employees. The expenses for this were EUR 934 thousand in the reporting period (2020: EUR 902 thousand).

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

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

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

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

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

Interest rate	Salary increases	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

Interest rate	Salary increases	DB0 31 Dec. 2020 EUR thousand
1.0%	3.5%	16,269
0.85%	3.0%	15,658
1.0%	3.0%	15,395
1.15%	3.0%	15,139
1.0%	2.5%	14,579

Provisions for pensions

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

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

Pension provisions were increased by EUR 2,183 thousand in the reporting period as a result of the acquisition of Frequentis Orthogon GmbH. These are defined benefit obligations relating to individual commitments to four employees. The beneficiaries are entitled to a lifelong fixed retirement pension, which is only partly covered by reinsurance.

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

The pension benefit obligations were measured using the following parameters:

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

Development of pension provisions and plan assets:

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

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

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

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

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

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

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

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

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

Provisions for anniversary bonuses

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

Obligations for anniversary bonuses were measured by applying an interest rate of 1.0% (2020: 1.0%) and an average term of 7.1 years (2020: 7.4 years).

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

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

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

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

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

Other non-current provisions

The other non-current provisions comprise:

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

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

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

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

32. Contract liabilities from contracts with customers

The contract liabilities from contracts with customers contain the consideration received where the commitment to transfer goods or services to a customer has not yet been fulfilled. These primarily relate to advance payments, some of which are secured by prepayment guarantees. In addition, in some cases payments are secured by bank guarantees. No collateral existed, either on the reporting dates or during the year.

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

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

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

Other contract liabilities contain contractual claims to advance payments.

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

33. Other liabilities

The other liabilities comprise:

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

*) Comparative amount restated

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

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

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

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

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

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

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

34. Other current provisions

The other current provisions comprise:

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

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

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

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

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

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

Other information

35. Consolidated cash flow statement

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

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

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

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

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

	Carrying amount as at 1 Jan. 2021 EUR thousand	Change in reporting entities EUR thousand	Exchange rate differences EUR thousand	Cash flow EUR thousand	Addition IFRS 16 EUR thousand	Disposal IFRS 16 EUR thousand	Reclassification of maturities EUR thousand	Carrying amount as at 31 Dec. 2021 EUR thousand
Non-current liabilities	5,387	0	37	-70	0	0	-1,085	4,269
Non-current lease liabilities	31,811	90	242	0	4,996	0	-7,354	29,785
Current liabilities	1,315	0	14	-1,329	0	0	1,085	1,085
Current lease liabilities	7,292	457	90	-8,228	857	-28	7,354	7,794
Total liabilities for financing activities	45,805	547	383	-9,627	5,853	-28	0	42,933

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

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

36. Financial instruments

Overview

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

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

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

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

Liquidity risk

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

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

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

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

The following table shows the contractually agreed (undiscounted) payments of interest and principal for non-derivative financial liabilities. The variable interest payments for financial instruments were derived from the last applicable interest rates prior to 31 December 2021 and 31 December 2020. Foreign currency amounts were translated in each case at the closing rate on the reporting date. It is not expected that the cash flows from the financial liabilities included in the maturity analysis could occur much earlier or that the amounts could differ significantly.

2021

in EUR thousand	Carrying amount	Contractual cash flows			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
Financial derivatives	1,562	43,647	0	0	43,647
Derivative financial liabilities	1,562	43,647	0	0	43,647
TOTAL	61,760	67,980	26,774	10,109	104,863

2020

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

Credit risk

Credit risk is the risk of a financial loss if a customer or the counterparty to a financial instrument does not satisfy its contractual obligations. Credit risks mainly relate to receivables from customers (2021: EUR 69,435 thousand; 2020: EUR 59,318 thousand), contract assets (2021: EUR 38,353 thousand; 2020: EUR 38,420 thousand), other financial assets (2021: EUR 672 thousand; 2020: EUR 2,750 thousand), time deposits (2021: EUR 2,199 thousand; 2020: EUR 0), and cash and cash equivalents (2021: EUR 103,798 thousand; 2020: EUR 91,265 thousand).

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

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

The measures used in the past to assess creditworthiness did not have to be tightened as a result of the COVID-19 pandemic.

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

The estimated loss allowances for cash and cash equivalents were measured on the basis of the expected 12-month credit losses and reflect their maturities. Based on the external ratings of the banks and financial institutions it uses, the Frequentis Group estimates that there is a low default risk in respect of its cash and cash equivalents.

Apart from investments and deposits totalling EUR 15,499 thousand (31 December 2020: EUR 12,741 thousand) at one bank, there is no significant concentration or material credit risk in respect of individual banks, customers, contractual partners or individual financial instruments. In response to the insolvency of Commerzialbank Mattersburg in 2020, counterparty risk management has been extended by defining core banks. Every core bank must be system-relevant and a bank-specific limit has been set for the entire banking relationship, based on the bank's credit rating.

Interest rate risk

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

The bank deposits included in cash and cash equivalents amount to EUR 103,798 thousand (31 December 2020: EUR 91,265 thousand) and bear interest at variable rates or are not interest-bearing. A reduction in interest rates would increase negative interest. This is not, however, material as the cash and cash equivalents are divided among several banks. In the reporting period, negative interest of EUR 155 thousand (2020: EUR 14 thousand) was paid. This is recognised in other operating expenses. An increase in interest rates of one percentage point would increase interest income by EUR 1,038 thousand (2020: EUR 913 thousand).

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

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

Exchange rate risk

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

For information on the hedging of exchange rate risks, see the "Financial derivatives" section.

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

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

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

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

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

Fair value

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

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

The earn-out liability relating to the acquisition of ATRiCS is measured at fair value and allocated to the category at fair value through profit or loss. The fair value is allocated to level 3 in the fair value hierarchy.

The liability relating to the put option of the non-controlling interests in ELARA Leitstellentechnik GmbH is recognised at fair value, while changes are recognised in equity with no impact on profit or loss in accordance with IFRS 10. The fair value is allocated to level 3 in the fair value hierarchy.

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

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

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

Level	Financial instruments at fair value
Level 2:	
Measurement based on quoted prices for similar assets	Financial derivatives
Level 3:	
Measurement based on models with significant valuation parameters that are unobservable on the market	Equity instruments, earn-out liability, liability under put option

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

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

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

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

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

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

Financial derivatives

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

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

Forward exchange contracts are concluded to hedge the risk of exchange rate fluctuations. Financial derivatives are not used for speculative purposes.

The Frequentis Group aims to manage and monitor the foreign currency risks for future payments under contracts with customers on a rolling basis throughout the entire project period through hedging with forward exchange contracts at the date of order intake (cash flow hedges). The hedging instruments (forwards, swaps) are concluded for a year and extended annually in the amount of the cash flows still expected (extension at historical rates). Payments from the hedged cash flows are expected to occur in the years 2022 to 2026.

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

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

The carrying amount of financial derivatives corresponds to their current fair value, whereby the fair value was determined from the current market value based on the closing exchange rate for the foreign currency as at 31 December 2021, verified by corresponding bank confirmations.

The following table shows the development of financial derivatives:

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

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

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

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

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

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

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

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

37. Leases

Leases as lessee

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

The leases for buildings are concluded either for a defined period or for an indefinite period with short termination periods for the lessee and lessor. When office premises in small subsidiaries are leased, they are classified as short-term leases because termination does not result in any penalties and new premises are readily available. The lease for the office building used as the company's headquarters cannot be terminated until 2026. As at 31 December 2020, it was assumed that the lease would be extended to 2028. This was reviewed as at 31 December 2021 and the period was adjusted to 2029. As a result, the right-of-use asset increased by EUR 3,062 thousand.

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

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

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

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

2021	Right-of-use assets for land and buildings EUR thousand	Right-of-use assets for machinery EUR thousand	Right-of-use assets for other plant, factory and office equipment EUR thousand	Total EUR thousand
Acquisition cost				
As at 1 January 2021	49,363	587	2,707	52,657
Foreign currency translation	499	0	10	509
Changes in reporting entities	2,670	0	198	2,868
Addition	5,003	0	850	5,853
Disposal	-507	0	-321	- 828
As at 31 December 2021	57,028	587	3,444	61,059
Accumulated depreciation				
As at 1 January 2021	-12,775	-19	-1,112	-13,906
Foreign currency translation	-231	0	-5	-236
Changes in reporting entities	-2,004	0	-113	-2,117
Addition	-7,336	-96	-799	-8,231
Disposal	507	0	294	801
As at 31 December 2021	-21,839	- 115	-1,735	-23,689
Carrying amount				
As at 31 December 2021	35,189	472	1,709	37,370
2020				
Acquisition cost				
As at 1 January 2020	44,777	0	2,058	46,835
Foreign currency translation	-374	0	-10	- 384
Changes in reporting entities	0	0	9	9
Addition	5,582	587	811	6,980
Disposal	-622	0	-161	- 783
As at 31 December 2020	49,363	587	2,707	52,657
Accumulated depreciation				
As at 1 January 2020	-6,535	0	-502	-7,037
Foreign currency translation	96	0	2	98
Changes in reporting entities	0	0	-4	-4
Addition	-6,925	-19	-746	-7,690
Disposal	589	0	138	727
As at 31 December 2020	-12,775	- 19	-1,112	-13,906
Carrying amount				
As at 31 December 2020	36,588	568	1,595	38,751

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

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

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

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

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

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

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

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

Leases as lessor

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

38. Information on business relations with related parties

Parent company

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

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

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

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

Associated companies

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

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

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

Related companies

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

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

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

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

Austrian Research Promotion Agency (Österreichische Forschungsförderungsgesellschaft/FFG): Mr. Johannes Bardach is a member of the Supervisory Board of FFG. FFG's core business is granting subsidies and loans for research purposes. To ensure the necessary strategic focus of the Supervisory Board, in accordance with the FFG law, representatives of companies that receive funding from FFG are nominated as members of the Supervisory Board.

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

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

Related persons

Executive Board

In the reporting period, the Executive Board comprised:

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

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

Frequentis AG agreed long-term incentive plans with the Chairman of the Executive Board, Mr. Norbert Haslacher, in 2019, 2020, and 2021 (LTIP 2019, LTIP 2020, and LTIP 2021). For further information, see Note 29. Share-based payment.

The members of the Executive Board have been granted pension benefits. In addition to the post-retirement payments, these include pension benefits for surviving dependants after the death of the beneficiary. The post-retirement benefits are generally paid when the beneficiary reaches a specific age, provided that the employment contract has ended at this date. Expenses of EUR 391 thousand were incurred in the reporting period (2020: EUR 298 thousand) for contributions to pension insurance and the recognition of pension provisions for members of the Executive Board. This amount includes service cost of EUR 159 thousand (2020: EUR 109 thousand), interest cost of EUR 32 thousand (2020: EUR 39 thousand), and pension insurance expense of EUR 200 thousand (2020: EUR 150 thousand).

In the event of termination of employment, severance payments are due in accordance with the legal regulations in Austria and contractual agreements. Additions to the corresponding provisions for severance payments amounted to EUR 259 thousand in 2021 (2020: EUR 33 thousand).

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

Supervisory Board

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

The remuneration of the Supervisory Board amounted to EUR 148 thousand in the reporting period (2020: EUR 145 thousand).

An office and support services are provided free of charge to the Chairman of the Supervisory Board, Mr. Johannes Bardach, for the performance of his function as Chairman of the Supervisory Board. EUR 52 thousand (EUR 4 thousand) was invoiced for office and support services that do not relate to the performance of his function as Chairman of the Supervisory Board of Frequentis. As at 31 December 2021, there was an outstanding receivable of EUR 4 thousand (2020: EUR 4 thousand) for this.

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

39. Significant events after the reporting date

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

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

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

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

40. Additional information

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

Audit fees

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

41. Capital management

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

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

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

The Frequentis Group calculates EBIT as follows:

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

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

42. Risk management

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

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

Vienna, 14 March 2022

Auditor's Report

Report on the consolidated financial statements

Audit Opinion

We have audited the consolidated financial statements of Frequentis AG, Vienna, and of its subsidiaries (the Group) comprising the consolidated balance sheet as of December 31, 2021, the consolidated income statement, the consolidated statement of changes in equity and the consolidated statement of cash flows for the fiscal year then ended and the notes to the consolidated financial statements.

Based on our audit the accompanying consolidated financial statements were prepared in accordance with the legal regulations and present fairly, in all material respects, the assets and the financial position of the Group as of December 31, 2021 and its financial performance for the year then ended in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU and with requirements stated in par. 245a UGB.

Basis for opinion

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

Key audit matters

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

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

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

Project Accounting

Situation and reference to further information:

A major part of the presented revenues is derived from project related business, which in the main comprises delivery and maintenance contracts. The large number of projects are different in order volume, technical complexity and duration, with a few contracts having terms of several years. In general, revenue of maintenance contracts is realised over the service period. When the requirements for realisation over time are met, revenues 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 arise due to COVID-19 constraints, in particular travel restrictions, on projects acceptances and therefore project costs. Due to the significant volume of the project business, the risk for the consolidated statements consists of a material misstatement of the project revenue, the related project costs as well as the corresponding balance sheet items.

Information on the accounting of the project business can be found in chapter 2 of the notes under the accounting and valuation policy "Impact of COVID-19 pandemic", "IFRS 15 Revenue from Contracts with Customers" as well as "Significant estimates and exercise of discretion". Further information can be found in chapter 4 "Revenues" within the notes on the consolidated income statement and in chapter 24 "Contract assets from contracts with customers" and chapter 32 "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 COVID-19. We performed an analysis of current project data as well as the reconciliation of assumptions and estimates with contracts and further documents. In addition, we have examined the recording of costs on the projects and the determination of the stage of completion. Finally, we have assessed whether the presentation of the project business in the consolidated financial statement as well as the disclosures in the notes are in accordance with the requirements of IFRS 15.

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

Situation and reference to further information:

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

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

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

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

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

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

Audit response:

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

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

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

Other information

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

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

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

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, to consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of management and the supervisory board/audit committee for the consolidated financial statements

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

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

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

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

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the EU regulation and in accordance with Austrian Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

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

We also:

- identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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

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

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

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

Comments on the management report for the Group

Pursuant to Austrian Generally Accepted Accounting Principles, the Group management report is to be audited as to whether it is consistent with the consolidated financial statements and as to whether it was prepared in accordance with the applicable legal regulations.

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

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

Opinion

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

Statement

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

Additional information in accordance with article 10 of the EU regulation

We were elected as auditor by the ordinary general meeting at May 20, 2021. We were appointed by the Supervisory Board on August 17, 2021. We are auditors without cease since 2018.

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

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

Responsible Austrian certified public accountant

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

Vienna, 14 March 2022



BDO Austria GmbH

Wirtschaftsprüfungs- und Steuerberatungsgesellschaft

Mag. Gerhard Posautz
Auditor

Mag. Gerhard Fremgen
Auditor

Statement by all legal representatives

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

Vienna, 14 March 2022



Norbert Haslacher
Chairman of the Executive Board



Peter Skerlan
Member of the Executive Board



Hermann Mattanovich
Member of the Executive Board

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
AIM	Aeronautical Information Management Aeronautical information services that provide pilots with all the information necessary for a flight
AMAN	Arrival Manager Arrival management system that supports air traffic controllers efficiently in the management of incoming flights to make the best use of available runway and airspace capacities
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
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
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
CISO	Chief Information Security Office Senior-level executive responsible for information security
DCB	Demand Capacity Balancer System that enables intelligent flight time predictions to proactively manage airport airside operational uncertainties with various time horizons

DMAN	<p>Departure Manager</p> <p>Departure management system that supports air traffic controllers by in the efficient planning of outbound traffic at airports and accordingly in optimised target times on the runway and at the stands</p>
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>
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>
IoT	Internet of Things
IP networks	<p>IP stands for "Internet Protocol"</p> <p>IP networks work with the internet protocol and packet switching; They consist of subnetworks that use routers or switches to connect to the actual backbone network, which constitutes the communication infrastructure</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>
LDACS	<p>L-band Digital Aeronautical Communication System</p> <p>Wideband terrestrial system with line-of-sight coverage, for future aeronautical communications</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>
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>
PSCE	<p>Public Safety Communication Europe (Forum)</p> <p>An independent, not-for-profit organisation dedicated to improving safety-critical communication systems and services for the good of society as a whole. It provides a common platform for experts, authorities, and emergency services (e.g., police forces, fire services, emergency rescue services), manufacturers, and research institutes to share information to advance the development of communication and information management systems.</p>
PST	<p>Public Safety & Transport</p> <p>Name of the Frequentis business segment comprising the Public Safety, Public Transport (i.e. railways) and Maritime business domains</p>
SaaS	<p>Software as a Service</p> <p>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</p>
SESAR	<p>Single European Sky ATM Research</p> <p>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</p>
SIRT	<p>Security Incident Response Team</p> <p>Coordinating entity for the assessment of information security vulnerabilities, risk mitigation, and information security incident management</p>
TCR	<p>Tactical Control Radar</p> <p>Medium-range radar systems, that are generally used for controlling the airspace around a set location on the ground</p>
TETRA	<p>TErrestrial Trunked RAdio</p> <p>Open standard for digital trunked radio which enables the setup of universal networks</p>
UAS	<p>Unmanned Aircraft System</p>
UTM	<p>Unmanned aircraft system Traffic Management</p> <p>An air traffic management system for remotely and autonomously controlled operations of unmanned aerial systems</p>

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
CAGR	Compound Annual Growth Rate
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
CoC	Code of Conduct
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
ERM	Enterprise Risk Management Group-wide risk management
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
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
IoT	Internet of Things
IPO	Initial Public Offering
ISIN	International Securities Identification Number, Frequentis' ISIN: ATFREQUENT09
L rules	Legal requirements of the Austrian Code of Corporate Governance
LTIP	Long Term Incentive Plan/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 2022

05.04.2022	Annual financial statements 2021
23.05.2022	Record date for General Meeting
02.06.2022	Annual General Meeting, Vienna
08.06.2022	Ex-dividend day
09.06.2022	Record date for dividend
10.06.2022	Dividend payment day
17.08.2022	Half-year financial report 2022

<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.

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Investor Relations:

Stefan Marin

Tel. +43 1 81150 1074

investor@frequentis.com

www.frequentis.com/en/ir

Corporate Communications:

Barbara Fürchtegott

Tel. +43 1 81150 4631

communications@frequentis.com

www.frequentis.com/en/irnews

Publishing details:

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Innovationsstraße 1, 1100 Vienna, Austria

Tel: +43 1 81150 0

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