Report by the Board of Directors and Financial Statements 2022

Bittium

Contents

Report by the Board of Directors 2022

Unless otherwise mentioned, the figures in brackets refer to the corresponding period in the previous year.

Year 2022 in Short

The Net Sales of 2022 Decreased by 5.1% from the Previous Year

- Net sales were EUR 82.5 million (EUR 86.9 million), representing a 5.1 percent decrease year-on-year.
- The share of product-based net sales was EUR 57.4 million (EUR 63.1 million), representing 69.6 percent of the net sales. The share of Medical Technologies products was EUR 22.6 million (EUR 27.8 million), and the share of Defense & Security products was EUR 34.8 million (EUR 35.3 million).
- The share of services-based net sales was EUR 25.1 million (EUR 23.8 million), representing 30.4 percent of the net sales. The share of Connectivity Solutions R&D services was EUR 15.2 million (EUR 15.5 million).
- EBITDA was EUR 11.0 million (EUR 13.7 million).
- Operating result was EUR 0.3 million (EUR 3.2 million).
- Result for the period was EUR 0.3 million, and earnings per share were EUR 0.007 (result for the period EUR 3.3 million and earnings per share EUR 0.093).
- Cash flow from operating activities was EUR 8.0 million (EUR 8.3 million).
- Net cash flow was EUR -3.0 million (EUR -2.6 million).
- The order backlog was EUR 28.1 million (EUR 29.5 million)
- The Board of Directors of Bittium Corporation proposes to the Annual General Meeting of shareholders to be held on April 12, 2023, resolve to pay EUR 0.05 per share as a dividend based on the adopted balance sheet for the financial period of January 1–December 31, 2022.

Bittium's net sales in January–December 2022 decreased by 5.1 percent year-on-year to EUR 82.5 million (EUR 86.9 million).

The share of product-based net sales was EUR 57.4 million (EUR 63.1 million), representing 69.6 percent of the net sales. The share of Medical Technologies products was EUR 22.6 million (EUR 27.8 million) and the share of Defense & Security products and systems was EUR 34.8 million (EUR 35.3 million). The decline in product-based net sales was caused by component availability difficulties.

The share of services-based net sales was EUR 25.1 million (EUR 23.8 million), representing 30.4 percent of the net sales. The share of Connectivity Solutions R&D services was EUR 15.2 million (EUR 15.5 million), resulting mainly from R&D services for wireless telecommunication customers.

EBITDA was EUR 11.0 million (EUR 13.7 million).

R&D investments were EUR 22.3 million (EUR 19.8 million), representing 27.0 percent of net sales (22.8 percent) of which EUR 6.6 million were capitalized in the balance sheet, being EUR 0.4 million less than a year ago.

The operating result in January–December 2022 was EUR 0.3 million (EUR 3.2 million). The weakening of the operating result was especially caused by the temporary decrease in the net sales of the Medi-

cal Technologies product business due to the component shortage and the continued investments in sales and marketing, and product development to ensure the future growth of the business.

Cash flow from operating activities was EUR 8.0 million (EUR 8.3 million). Net cash flow during the period was EUR -3.0 million, including the most significant items EUR 6.6 million R&D investments into own products and EUR 1.4 million dividend payment (EUR -2.6 million, including the most significant item EUR 7.0 million R&D investments into own products, and EUR 1.1 million dividend payment).

The equity ratio was 69.7 percent (72.4 percent).

Net gearing was 3.0 percent (0.2 percent). The order backlog at the end of the year was EUR 28.1 million (EUR 29.5 million).

Financial Performance in January–December 2022

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME, MEUR	2022 12 months	2021 12 months
Net sales	82.5	86.9
Operating profit / loss	0.3	3.2
Financial income and expenses	-0.8	-0.7
Result before tax	-0.4	2.5
Result for the period	**0.3**	**3.3**
Total comprehensive income for the period	**0.5**	**3.6**
Result for the period attributable to:		
Equity holders of the parent	0.3	3.3
Total comprehensive income for the period attributable to:		
Equity holders of the parent	0.5	3.6
Earnings per share from continuing operations, EUR	0.007	0.093

Half Year Figures

GROUP'S NET SALES AND OPERATING RESULT, MEUR	2H/22	1H/22	2H/21	1H/21
Net sales	41.4	41.0	47.2	39.7
Operating profit (loss)	0.6	-0.2	3.9	-0.7
Result before taxes	0.2	-0.7	3.6	-1.0
Result for the period	0.9	-0.6	4.4	-1.0

DISTRIBUTION OF NET SALES BY PRODUCT AND SERVICES, MEUR AND %	2H/22	1H/22	2H/21	1H/21
Product based net sales	30.2	27.2	35.2	27.9
	72.9%	66.3%	74.5%	70.3%
Services based net sales	11.2	13.8	12.0	11.8
	27.1%	33.7%	25.5%	29.7%

DISTRIBUTION OF PRODUCT-BASED NET SALES, MEUR AND %	2H/22	1H/22	2H/21	1H/21
Defense & Security products	18.9	15.9	20.8	14.5
	62.6%	58.5%	59.3%	51.8%
Medical Technologies products	11.3	11.3	14.3	13.5
	37.4%	41.5%	40.7%	48.2%

DISTRIBUTION OF SERVICES-BASED NET SALES, MEUR AND %	2H/22	1H/22	2H/21	1H/21
Connectivity Solutions R&D services	7.2	8.0	7.7	7.8
	64.0%	57.8%	63.8%	66.6%
Other service-based net sales	4.0	5.8	4.4	3.9
	36.0%	42.2%	36.2%	33.4%

DISTRIBUTION OF NET SALES BY MARKET AREAS, MEUR AND %	2H/22	1H/22	2H/21	1H/21
Asia	0.7	0.5	0.3	0.3
	1.8%	1.3%	0.6%	0.6%
North and South America	12.9	10.4	14.9	14.4
	31.1%	25.4%	31.5%	36.4%
Europe	27.8	30.1	32.0	25.0
	67.1%	73.3%	67.9%	62.9%

Quarterly Figures

GROUP'S NET SALES AND OPERATING RESULT, MEUR	4Q/22	3Q/22	2Q/22	1Q/22	4Q/21
Net sales	27.6	13.8	22.7	18.4	30.1
Operating profit (loss)	3.0	-2.4	0.8	-1.0	3.7
Result before taxes	2.8	-2.6	0.6	-1.2	3.5
Result for the period	3.5	-2.6	0.6	-1.2	4.3

DISTRIBUTION OF NET SALES BY PRODUCT AND SERVICES, MEUR AND %	4Q/22	3Q/22	2Q/22	1Q/22	4Q/21
Product based net sales	20.9	9.3	15.8	11.4	23.0
	75.8%	67.3%	69.7%	62.0%	76.5%
Services based net sales	6.7	4.5	6.9	7.0	7.1
	24.2%	32.7%	30.3%	38.0%	23.5%

DISTRIBUTION OF PRODUCT-BASED NET SALES. MEUR AND %	4Q/22	3Q/22	2Q/22	1Q/22	4Q/21
Defense & Security products	15.8	3.1	8.2	7.8	15.5
	75.5%	33.6%	51.6%	68.2%	67.6%
Medical Technologies products	5.1	6.2	7.7	3.6	7.4
	24.5%	66.4%	48.4%	31.8%	32.4%

DISTRIBUTION OF SERVICES-BASED NET SALES, MEUR AND %	4Q/22	3Q/22	2Q/22	1Q/22	4Q/21
Connectivity Solutions R&D services	4.2	3.0	3.7	4.3	4.6
	62.4%	66.4%	54.6%	60.9%	64.8%
Other service-based net sales	2.5	1.5	3.1	2.7	2.5
	37.6%	33.6%	45.4%	39.1%	35.2%

DISTRIBUTION OF NET SALES BY MARKET AREAS, MEUR AND %	4Q/22	3Q/22	2Q/22	1Q/22	4Q/21
Asia	0.5	0.3	0.2	0.3	0.2
	1.8%	1.9%	0.9%	1.7%	0.6%
North and South America	7.6	5.3	6.6	3.8	8.8
	27.7%	38.1%	29.1%	20.8%	29.2%
Europe	19.5	8.3	15.9	14.2	21.1
	70.6%	60.0%	70.0%	77.4%	70.2%

Statement of Financial Position and Financing

The figures presented in the statement of financial position of December 31, 2022, are compared with the statement of the financial position of December 31, 2021 (MEUR).

	Dec. 31, 2022	Dec. 31, 2021
Non-current assets	85.0	85.9
Current assets	84.6	80.3
Total assets	**169.7**	**166.1**
Share capital	12.9	12.9
Other capital	102.8	103.9
Total equity	115.8	116.8
Non-current liabilities	21.7	21.5
Current liabilities	32.2	27.8
Total equity and liabilities	**169.7**	**166.1**

CASH FLOW OF THE REVIEW PERIOD	1-12/2022	1-12/2021
+ profit of the period +/- adjustment of accrual basis items	11.7	15.2
+/- change in net working capital	-2.9	-6.2
- interest, taxes and dividends	-0.8	-0.7
= net cash from operating activities	8.0	8.3
- net cash from investing activities	-8.0	-8.4
- net cash from financing activities	-3.0	-2.5
= net change in cash and cash equivalents	-3.0	-2.6

The number of gross investments in the period under review was EUR 9.5 million. Net investments for the review period totaled EUR 9.4 million. The total amount of depreciation during the period under review was EUR 10.7 million. The amount of interest-bearing debt, including finance lease liabilities was EUR 22.4 million at the end of the reporting period (EUR 22.3 million). Bittium's equity ratio at the end of the period was 69.7 percent (72.4 percent).

The Group's liquidity remained good despite the uncertainty caused by the coronavirus pandemic and the global disruption in the availability of electronic components. Securing cash flow has not required any special adjustment measures, and no significant changes have been identified in the credit risks of trade receivables.

Cash and other liquid assets at the end of the reporting period were EUR 19.0 million (EUR 22.0 million). Net cash flow during the period was EUR -3.0 million. The net cash flow resulted from EUR 6.6 million investments made into own product development and EUR 1.4 million dividend payment as the most significant items (EUR -2.6 million including EUR 7.0 million investments made into own product development, and EUR 1.1 million dividend payment as the most significant item).

Bittium has a EUR 20.0 million senior loan and a EUR 10.0 million committed overdraft credit facility agreement with Nordea Bank Finland Plc. The maturity date for the senior loan is May 24, 2024, and the credit limit agreement is valid until May 24, 2024. Bittium has EUR 10.0 million committed overdraft credit facility agreement with OP Corporate Bank Plc valid until September 30, 2025. At the end of the review period, no limits from these facilities were in use.

Bittium follows a hedging strategy that has the objective to ensure the business margins in changing market circumstances by minimizing the influence of exchange rates. According to the hedging strategy principles, the net position in the currency is hedged when it exceeds the euro limit defined in the hedging strategy. The net position is determined based on accounts receivable, accounts payable, order book, and budgeted net currency cash flow.

Research and Development

Bittium continued to make significant investments to develop its own products and product platforms. In January–December 2022, the R&D investments were EUR 22.3 million (EUR 19.8 million), representing 27.0 percent of the net sales (22.8 percent).

The R&D investments focused mainly on developing medical technology products, developing tactical communication system and its products for the defense industry, and developing different types of special terminal products for authorities and their related security software.

The capitalized R&D investments are related to the investments in developing the software-defined radio-based tactical radios, Bittium Tough SRD™ product family, further development of tactical communication networks, and development of medical technology products.

R&D INVESTMENTS, (MEUR)	1-12/2022	1-12/2021
Total R&D investments	**22.3**	**19.8**
Capitalized R&D investments	-6.6	-7.0
Depreciations and impairment of R&D investments	5.9	5.5
Cost impact on income statement	21.5	18.3
R&D investments, % of net sales	27.0%	22.8%

CAPITALIZED R&D INVESTMENTS IN BALANCE SHEET, MEUR	1-12/2022	1-12/2021
Balance sheet value in the beginning of the period	48.1	46.6
Additions during the period	6.6	7.0
Depreciations and impairment of R&D investments	-5.9	-5.5
Balance sheet value at the end of the period	48.8	48.1

Strategy Implementation in 2022

Bittium's goal is to be a major international supplier of secure and reliable communication solutions for the defense and authority markets, a leading supplier of industrial connectivity solutions and R&D services, and a major supplier of measurement and remote diagnostics solutions for the measurement and analysis of biosignals.

At the beginning of 2022, Bittium started developing its operations towards independent business units. On December 21, 2022, the company announced that it will continue to develop its operations towards independent business units with the aim of starting business-specific segment reporting by the beginning of 2024 at the latest. Although the technological know-how needed in the company's operations is similar, the business units' customers and market dynamics are very different. The goal of the development is to bring business management and decision-making closer to the market and thus improve the speed of decision-making and strengthen the company's position in the markets. The change also speeds up the adaptation of the business units to the surrounding market situations, enabling the creation of ever-increasing added value for customers.

The three business units are: Medical Technologies, Defense & Security, and Connectivity Solutions.

- The Medical Technologies business unit consists of three business areas, which are measuring and analyzing the electrical activity of the heart (ECG) (Cardiac), measuring and analyzing the electrical activity of the brain (EEG) (Neuro), and Home Sleep Apnea Testing (Sleep). In the coming years, alongside the product business, the company will invest in diversifying the software business and increasing the turnover it generates. In the Medical Technologies business, the focus will be on increasing the international customer base and market shares.
- In the Defense & Security business unit, the company offers secure communication solutions for the authority, defense, and other professional user markets. The business consists of tactical communication solutions targeted to the defense market and high-security communication solutions targeted to the authorities. Over the past years, the company has made significant investments to expand its product portfolio. The products and systems are now internationally at a very competitive level in terms of coverage and technical features. In the next phase, the company will utilize the previously made product development investments and invest strongly in international sales and marketing. The company's goal is to significantly grow the international product business and achieve an internationally significant position as a provider of tactical communication and high-security communication solutions.
- In the Connectivity Solutions business unit, the company offers its customers product development services and wireless connectivity solutions for the development of new innovative products in a secure and developing wireless environment. In the coming years, the company will focus on growing its international customer base in the Telecom, Industrial IoT, and MedTech market segments.

Bittium has made significant product development investments in its own products and solutions between 2018 and 2022. These product development investments have been completed, and the company is moving from product development-focused product portfolio expansion to international business expansion and growth. Bittium is aiming for international growth in the product business in both tactical communication solutions and medical technology products and services in the coming years.

Bittium continues to explore inorganic growth opportunities and is ready to invest in acquisitions that support the company's growth strategy.

Market Environment and Business Development in January–December 2022

Defense & Security Business Unit

The world's political situation changed significantly in February after Russia attacked Ukraine. The outbreak of war caused several countries to increase their defense budgets.

In the first phase, the increased defense funds have been allocated mainly to consumables, but the gradually increased budgets will also be allocated to the modernization and development projects of the defense forces of different countries, and new defense force modernization projects are starting in different parts of the world. Bittium is involved in several new tenders regarding the modernization of tactical communications in different countries. In accordance with the nature of the market, the bidding stages of these new projects are quite slow and can take several years.

Finland started the process of joining the military alliance NATO. A possible accession to NATO will strengthen Bittium's market position, especially in tenders from NATO countries. Bittium's tactical communication products have very high-quality technical solutions for use in NATO countries, and NATO countries have been potential customers of Bittium even without Finland joining NATO. In addition, joining would enable Bittium to implement NATO waveforms and encryption solutions, if necessary, and would offer the opportunity to participate in the research programs of NATO countries.

In the domestic defense market, field testing of Bittium Tough SDR™ radios and their waveforms, as well as preparations for the large-scale deployment of the radios, continued throughout the year 2022. Bittium received a continuation order for the development of the radios' waveform. The project will be multi-year. In November, the Finnish Defence Forces ordered Bittium Tough SDR

Handheld and Vehicular radios for around 4.3 million euros.

Deliveries of other tactical communication products to the Finnish Defense Forces were also continued. Bittium received orders in accordance with framework agreements for both Bittium Tactical Wireless IP Network™ (TAC WIN) software radio system products and Bittium Tough Comnode™ devices. Some of the deliveries were made in 2022 and some will be made in 2023. Bittium also supplied the Finnish Defense Forces with system support for the TAC WIN and Tough VoIP systems and further developed the new software version of the TAC WIN system. This ongoing development effort continues to improve the performance of the TAC WIN system's waveform and radio platform software based on observations made in field trials and training use, as well as waveform research conducted by Bittium.

The year 2022 has been busy in the international defense and authority markets. Product deliveries, integration, and testing of tactical communication system products continued to customers in Austria and Estonia, as well as other international customers. During the past year, a new promising market area has emerged: international companies developing air defense and sensor systems. In addition, several pilots of Tough SDR radios started in different parts of Europe and Asia.

We also continued the ESSOR collaboration with Bittium Tough SDR radios with good results. The interoperability tests performed in the summer with the new ESSOR High Data Rate Waveform were successful. Bittium's radios flexibly used Bittium's own broadband and narrowband waveforms as well as the ESSOR waveform for tactical data transmission.

During the past year, Bittium expanded the tactical communication product range with the new Bittium Tough VoIP Field Phone™ 2. Field Phone 2 is a new generation VoIP phone that enables reliable communication in demanding operating environments. Bittium Tough VoIP Field Phone 2 complements the existing Tough VoIP product family, meeting customers' need for a new generation field phone.

The secure Bittium Tough Mobile™ smartphone product family was supplemented with the new Bittium Tough Mobile™ 2 Tactical solution, which was released in June, and is aimed at the defense market. The comprehensive solution enables the soldier's mobile communication to be connected to either the Bittium Tough SDR Handheld™ radio or third-party tactical radios. The solution is compatible with various battle management systems, which enables real-time and efficient sharing of situational awareness in tactical networks.

The demand for Bittium Tough Mobile 2 smartphones and related data security software in the official market has increased with the Russian war of aggression and numerous data security attacks. Deliveries of phones and their various variants to the domestic and international markets continued. At the end of the year, Bittium delivered Tough Mobile 2 smartphones to the Swedish company Tutus. The delivery was a continuation of the cooperation between the companies, which has developed a mobile solution with a high level of information security, which combines Bittium's secure Bittium Tough Mobile 2 smartphone platform and the Tutus encryption solution approved by the Swedish government. Tutus has delivered this mobile solution, specially designed as a tool for critical communication and a mobile environment, to a major Swedish authority.

The features of the Tough Mobile 2 smartphone and related security software were further developed, and the company has applied for NATO security approval for its solution, which is expected to be received during 2023. The approval is believed to increase sales of the solution.

Medical Technologies Business Unit

The medical technology market has recovered from the uncertainty caused by the coronavirus pandemic. The importance of remote care and remote monitoring is still growing with the inadequacy of medical care resources and cost pressures. Remote monitoring and remote diagnostics solutions bring relief to these problems, which will in the future support the development of sales of Bittium's medical remote diagnostics solutions.

Bittium has medical device approvals in progress in many different countries. The new European Medical Device Product Safety Regulation, or MDR (Medical Device Regulation, EU 2017/745), entered into full force on May 26, 2021. The change has caused a backlog of quality system audits and device approvals, and thus a delay in application turnaround times.

In December, Bittium Respiro™, the advanced home sleep apnea test and analysis solution received MDR approval. Respiro focuses on nighttime polygraphy measurement at home and records and analyzes typical breathing disorders during sleep. Respiro uses artificial intelligence to speed up the analysis work. It supports various sensor configurations and service models, thanks to which it adapts to varying measurement needs and different business models.

Respiro's FDA (Food and Drug Administration) medical device approval for the North American market has progressed and approval is expected during the first half of 2023.

The component shortage significantly slowed down the manufacture and deliveries of devices, but also the reception of orders. The reason for the decrease in order intake is the existing contracts with our largest customers, according to which we are obliged to deliver the ordered products within a certain time after the order.

The demand for Bittium Faros™ ECG measuring devices increased in the European market during the past year. A significant part of the product deliveries of the past year was still made to Preventice Solutions (a subsidiary of Boston Scientific Group), a customer offering remote monitoring services in the US ECG market. At the beginning of the year, Bittium and Preventice signed an agreement according to which Bittium will continue the supply contract for BodyGuardian® MINI devices that monitor cardiac arrhythmias to Preventice. In addition, the cooperation in the development of new ECG technology tailored to the use of Preventice Solutions continues.

The Bittium Faros product family was expanded with the new Bittium Faros™ 180L ECG measuring device, which measures the ECG continuously for at least 14 days on one battery charge. The new version improves the diagnosis of arrhythmias due to the extended measurement time. The device also enables patients to be discharged earlier and better conditions to quickly detect and react to possible arrhythmias.

In the neurophysiology market, the pilots of the Bittium BrainStatus™ EEG measurement devices progressed, and new pilots started. There are, e.g., Finnish and European university hospitals that test the use of BrainStatus in their intensive care units. The market for BrainStatus in intensive care is just opening as the recommendations for intensive care are slowly changing to a more demanding direction regarding EEG measurement.

In October, Bittium announced it has established a Clinical Advisory Board to support the business of its healthcare technology products. The Clinical Advisory Board brings Bittium medical expertise and an international forum for the continuous development of products. Its task is to provide feedback and conduct clinical research on Bittium's products, and to assist Bittium with its own expertise in developing even more competitive solutions.

Connectivity Solutions Business Unit

During the past year, the net sales of R&D services remained at the same level as in the previous year. The market has recovered from the coronavirus pandemic and active sales and marketing have been done again. The most demand for R&D services was in the Industrial IoT, Telecom, and MedTech technology markets, where companies seek wireless connectivity for their products. Many customer projects were successfully completed, and new ones were started. The aim of the Connectivity Solutions business is to focus on growing the international customer base, especially in the Telecom, Industrial IoT, and MedTech market segments.

During the past year, Bittium introduced a new Cellular IoT solution to the market. It offers IoT devices direct connectivity to cloud services over mobile networks. The solution can be used to update the local connectivity of existing IoT devices to 4G/5G connectivity or to integrate 4G/5G connectivity into new IoT devices being developed. The solution is based on software modules, the reuse of which improves the competitiveness of Bittium's design services, enabling the implementation of connectivity projects for the customer faster and more cost-effectively.

The availability of labor is still a challenge, and no change is expected. In particular, there are too few software experts compared to the demand, and the competition for employees has increased the mobility of the workforce. During the past year, the company has invested in developing the employer image, which has contributed to the recruitment of new employees.

Significant Events after the Reporting Period

There were no significant events after the reporting period.

Outlook for 2023

Market Outlook 2023

The global disruption in the availability of electronic components that followed the coronavirus pandemic has had a slowing effect on the development of the company's business and sales in 2021 and 2022. The company estimates that the markets are recovering, and that the component shortage will ease during 2023.

About 70 percent of Bittium's net sales in total are generated from products and related systems, and the uncertainties related to product deliveries cause significant uncertainty for the accumulation of Bittium's net sales and operating result during the year 2023.

More information about Bittium's market outlook is presented in this report in the section "Market Outlook" as well as on the company's internet pages at **www.bittium.com**.

Financial Outlook 2023

Bittium expects the net sales in 2023 to grow and the operating result to improve from the previous year (net sales EUR 82.5 million in 2022 and operating result EUR 0.3 million in 2022). Cash flow in 2023 is expected to be positive. Due to the shortage of components, the first quarter of 2023 will be weak.

Long-term Financial Targets

Bittium aims for an average annual net sales growth of more than 10 percent and an operating profit level of 10 percent and estimates that it will achieve these goals in 2024.

Market Outlook

Bittium's customers operate in various industries, each of them having its own industry-specific factors driving the demand. A common factor creating demand among the whole customer base is the growing need for higher quality and secure data transfer. Due to the technology competencies accrued over time and the long history of developing mobile communication solutions, Bittium is in a good position to offer customized solutions to its customers. Over thirty years of experience and extensive competence in measuring biosignals also act as a basis for medical technology solutions.

The global coronavirus pandemic and the worldwide disruption in the availability of electronic components that followed the pandemic have had a slowing effect on the development of the company's business and sales in 2021 and 2022. The market is slowly recovering and the company believes that the component shortage will ease during 2023.

The world's geopolitical situation, problems in logistics chains, inflation, and deteriorating economic development create uncertainty in the market outlook.

The factors affecting the demand for Bittium's products and services are described below:

Defense, Public Safety, and Information Security Markets

- In the defense market's tactical communications sector, the governments' defense forces and other authorities need networks that troops, who are more and more constantly on the move, can use and transfer growing amounts of data securely. This creates demand for Bittium Tactical Wireless IP Network™ (TAC WIN) broadband network, Bittium Tough SDR™ handheld and vehicular radios, and for other Bittium's IP-based (Internet Protocol) tactical communication solutions that fulfill the needs of data transfer of moving troops and individual soldiers.
- Russia's war of aggression against Ukraine has also increased the defense budgets of various countries and has had a favorable effect on demand in the defense market. In the first phase, the increased defense appropriations have been allocated mainly to consumables. In the future, the increased budgets will also be aimed at the modernization and development projects of the defense forces of different countries, which may have a positive effect on the demand for Bittium's tactical communication solutions.
- Finland's possible NATO membership will have a positive effect on the demand for Bittium's defense and official products.
- Bittium continues its efforts to export tactical data transfer products to international markets and aims to get new international customers during 2023. The development of sales is moderate due to the long sales cycles of the defense industry.
- The use of LTE technology, smartphones, and applications continues to increase in special verticals, such as public safety, creating demand for Bittium Tough Mobile™ secure LTE smartphone and other customized special terminals based on Bittium's own product platform. The awareness of mobile security risks is growing, and the interest in secure mobile devices is increasing. The sales of secure terminal products are expected to develop moderately according to the nature of public safety markets.
- The global component shortage affects the availability of various components used in products, which affects the company's ability to deliver products to its customers on the agreed schedule. The component shortage is expected to ease within 2023.

Telecommunication and Digitalization

- In mobile telecommunications, the implementation of 5G is accelerating. Investments in developing new features continue and the importance of software development in the 5G network development expands. This creates demand for Bittium's R&D services. There is a wide range of frequencies allocated for the 5G technology, thus creating the need to develop multiple products to cover the market and creating demand for R&D services for the development of product variants. Different needs for satellite communication solutions increase the demand for Bittium's product development know-how with the addition of new players to the traditional supplier network. The demand for Bittium's R&D services is also increased by the need to develop new devices utilizing 5G technology.
- As digitalization evolves, secure IoT (Internet of Things) has become a significant development area in almost every industry. The increasing need for companies to digitalize their operations, collect data wirelessly, and transfer it to the internet and cloud services generate a need for Bittium's services and customized solutions. To this end, the market needs secure devices, for both demanding industrial and leisure applications, which collect information from the sensors used by the device and create a reliable wireless connection to the Internet and cloud services. The deployment of 5G technology is expanding and the number of digitalized devices increases continuously. The devices will also feature new and more advanced features that will create demand for design services. Therefore, the integration of different systems and technologies plays an important role in enabling complete digitalization services. There are several learning systems and devices under development that use different kinds of artificial intelligence (AI) technologies to ease and speed up the processing of large data amounts.
- Technological development and innovations enable the development of new devices and applications for monitoring health and well-being, which increases the demand for Bittium's product development service expertise. Bittium's experience in medical devices, sports applications, and wearable devices, combined with wireless connectivity expertise, enables competitiveness also in providing design services for health, well-being, and sports equipment.
- Labor competition for both equipment design and software experts is fierce and it is expected to continue in the market in 2023 as well.

Medical ECG, EEG, and Sleep Apnea Remote Monitoring Market

- The medical technology market is undergoing significant development in patient care, especially outside hospitals. There is an increasing focus on the prevention of diseases and health problems through early diagnosis and the discharge of patients at an earlier stage to reduce hospital and treatment days. These actions significantly increase efficiency in health care processes and lower costs.
- A prerequisite for early hospital discharge is the enabling of accurate and precise follow-up and measurement opportunities in home conditions, which would be enabled through remote monitoring. Remote monitoring and remote diagnostics also enable specialists' diagnoses regardless

of time and place. Also, evolving artificial intelligence-based algorithms become more common in supporting physicians in making diagnoses. Remote monitoring and remote diagnostics make it possible and faster to obtain more accurate diagnoses, which, in turn, speeds up the start of the right kind of treatment. The market change will enable several new providers to join the overall care service chain, without compromising the quality of specialist services.

- For remote monitoring and remote diagnostics, Bittium provides its Bittium Faros™ product family for remote heart monitoring, Bittium BrainStatus™ for measuring the electrical activity of the brain, home sleep apnea testing solution Bittium Respiro™, and different kinds of diagnostics software offered by Bittium.
- During the coronavirus pandemic, non-urgent patients seeking treatment and examinations decreased. Several hospitals, treatment facilities, and service providers in the healthcare sector switched to more extensive use of remote diagnostics solutions. The pandemic will accelerate the introduction of digital remote services in hospitals and care facilities, creating a positive development in the demand for remote monitoring products and services.
- The global component shortage affects the availability of various components used in the products, which affects the company's ability to deliver products to its customers on the agreed schedule. The component shortage is expected to ease by the end of 2023.

Risks and Uncertainties

Bittium has identified several business, market, and finance-related risk factors and uncertainties that can affect the level of sales and profits.

Russia's war of aggression against Ukraine and the subsequent global geopolitical instability combined with high inflation, supply chain challenges, and European energy market problems have caused various supply and demand-related risks and increased uncertainty.

Especially the global disruption in the availability of electronic components and their price development has caused fast changes in the company's operating environment. The company monitors the development of the situation and actively strives to ensure the availability of components required for product deliveries. Poor availability of components can have a detrimental effect on the progress of the ability to deliver products.

Market Risks

The global economic uncertainty may affect the demand for Bittium's services, solutions, and products and provide pressure on, e.g., pricing. In the short term, such uncertainty may affect, in particular, the utilization and chargeability levels and average hourly prices of R&D services. Growing political uncertainty may also affect the demand for Bittium's services, solutions, and products and the price competitiveness in the different geographical areas. Bittium is also increasingly exposed to legal, economic, political, and regulatory risks related to the countries in which its suppliers and other cooperation partners are located. Such risks may result in delays in deliveries or in situations where there will be no orders in the forecast quantities, currency losses, elevated costs, or litigations and related costs.

As Bittium's customer base includes, among others, companies operating in the field of telecommunication, defense, and other authorities, as well as companies delivering products to them and companies operating in the healthcare sector, the company is exposed to market changes in these industries.

A significant part of Bittium´s net sales accumulates from selling products and R&D services to defense and other authorities, as well as companies delivering products to them. Deviation in anticipated business development with such customer concentrations may translate as a significant deviation in Bittium's outlook, both in terms of net sales and operating results, during the ongoing financial period and thereafter. Bittium seeks to expand its customer base in the longer term and reduce dependence on individual companies, and hence the company would thereby be mainly affected by the general business climate in the industries of the companies belonging to Bittium's customer base instead of the development of individual customer relationships. The more specific market outlook has been presented in this report in the "Market outlook" section.

Business Related Risks

Bittium's operative business risks are mainly related to the following items: uncertainties and short visibility on customers' product program decisions, their make or buy decisions, and, on the other hand, their decisions to continue, downsize or terminate current product programs, execution and management of large customer projects, ramping up and down project resources, availability of personnel in labor markets, accessibility on commercially acceptable terms and, on the other hand, successful utilization of the most important technologies and components, competitive situation and potential delays in the markets, timely closing of customer and supplier contracts with reasonable commercial terms, delays in R&D projects, a realization of expected return on capitalized R&D investments, obsolescence of inventories and technology risks in product development causing higher than planned R&D costs, and risks related to the ramp-up of product manufacturing. Revenues expected to come from either existing or new products and customers include normal timing risks. Bittium has certain significant customer projects, and deviation in their expected continuation could also result in significant deviations in the company's outlook. In addition, there are typical industry warranty and liability risks involved in selling Bittium´s services, solutions, and products.

Bittium's product delivery business model faces such risks as high dependency on actual product volumes, timing risks, and potential delays in the markets. The above-mentioned risks may manifest themselves as lower amounts of products delivered or higher costs of production, and ultimately, as lower profit. Bringing Bittium's products to international defense and other authorities' markets may take longer than anticipated because the projects are typically long, and the purchasing programs are prepared in the lead of national governments and within the available financing. Once a supplier has been selected, product deliveries are typically executed over several years.

Some of Bittium's businesses operate in industries that are heavily reliant on patent protection and therefore face risks related to the management of intellectual property rights, on the one hand, related to accessibility on commercially acceptable terms of certain technologies in Bittium's products and services, and on the other hand, related to an ability to protect technologies that Bittium develops or licenses from others from claims that third parties' intellectual property rights are infringed. Additionally, parties outside of the industries operate actively to protect and commercialize their patents and therefore in their part increase the risks related to the management of intellectual property rights. At worst, claims that third parties' intellectual property rights are infringed could lead to substantial liabilities for damages. In addition, the progress of the customer projects and delivery capability may also be affected by potential challenges in global accessibility of key technologies and components on commercially acceptable terms, as well as by the acceptance of the necessary export licenses. The company changed its name to Bittium Corporation on July 1, 2015, and started using the new trademark. The registration and the use of the new trademark can include customary risks involved when taking a new trademark into use.

Financing Risks

Global economic uncertainty may lead to payment delays, increase the risk of credit losses, and weaken the availability and terms of financing. To fund its operations, Bittium relies mainly on income from its operative business and may from time to time seek additional financing from selected financial institutions. Bittium has a EUR 20.0 million senior loan and EUR 10.0 million committed overdraft credit facility agreement with Nordea Bank Plc. The maturity date for the senior loan is May 24, 2024, and the credit limit agreement is valid until May 24, 2024. Bittium has EUR 10.0 million committed overdraft credit facility agreement with OP Corporate Bank Plc valid until September 30, 2025.

These agreements include customary covenants related to, among other things, equity ratio, transferring property, and pledging. There is no assurance that additional financing will not be needed in case of investments, networking capital needs, or clearly weaker-than-expected development of Bittium's businesses. Customer dependency in some parts of Bittium's business may translate as an accumulation of risk with respect to outstanding receivables and ultimately with respect to credit losses.

Statement of Non-Financial Information

Bittium is an international technology company that offers socially useful technical innovations that improve communication connections, create security and promote healthcare.

The company is committed to responsible and sustainable business through its sustainability program. The sustainability program is based on the company's strategy, values, stakeholders' expectations and megatrends in the operating environment, which include digitization and the aging of the population as well as information security.

Bittium's new sustainability program is valid for the years 2022–2025. The company's sustainability work focuses on three key themes: personnel, customers and information security, and the environment. Ethical principles and responsible business practices are the basis of all activities.

Sustainability is part of Bittium's organizational culture and way of working. The company identifies and manages liability-related risks as part of the company's risk management, which emphasizes the role of the company's management group and the Board of Directors in implementing measures in daily operations.

Key Operating Principles

Bittium's operations are based on values, ethical principles, and a Code of Conduct. The code of conduct is part of the orientation program for new employees. Over the next few years, Bittium aims to bind all its partners and suppliers to the Code of Conduct through contracts.

Bittium's partners are expected to comply with Bittium's Code of Conduct principles and the supplier manual (Bittium Supplier Manual), which state, for example, Bittium's policies and requirements regarding the selection of suppliers and quality control. Bittium reviews the principles of sustainable operation of suppliers and partners and audits them according to the defined criteria. In 2022, the company conducted audits of critical manufacturing partners and, where applicable, also of component suppliers, which were carried out physically at the suppliers' premises. The audits of new suppliers were carried out as a self-assessment.

Export control is an important part of the company's operations and a prerequisite for cooperation between authorities and customers. The company has always followed the instructions and rules of export control when operating, for example, in areas of the defense and information security industries, and closely follows the changing legislation in different market areas. During 2022, Bittium continued the development work related to the export control system and procedures, which has improved the processing of license applications in the company.

Environmental Matters

Responsibility for the environment, climate change mitigation and resource-efficient solutions are an important part of Bittium's operations and development. In accordance with its environmental policy, Bittium is committed to minimizing the environmental impact in the production, use and disposal of the products it designs. That is why Bittium's products are designed to be long-lasting, repairable, and recyclable. Since Bittium's business is mainly focused on the beginning of the products' life cycle, its environmental impact is very small. The biggest environmental impact is caused by recycling the product.

In the new responsibility program, Bittium focuses on monitoring three environmental indicators that measure the environmental effects of operations: the development of the carbon dioxide equivalent (CO_2ekg), the development of the energy used (Mwh) and the percentage share of renewable energy in the total energy use.

The most significant areas in reducing Bittium's carbon footprint are the recycling of waste generated from operations, the utilization of renewable energy sources and increasing the environmental awareness of the personnel.

The Scope 1 carbon dioxide emissions (travel and waste) of Bittium's offices in Finland were 204.0 tCO_2 in 2022 (102.9 tCO_2 in 2021) and the Scope 2 emissions (heating and electricity) were 563.5 tCO_2e (615.7 tCO_2 in 2021). Bittium's total energy consumption decreased by 8.6% and was 3,827 MWh (4,187 MWh in 2021). Regarding the office space in Oulu, about 5 percent of the energy used was produced with solar energy on an annual basis (goal >5 percent). The share of renewable energy in the energy used in Finnish offices was more than 35 percent (35% in 2021).

Bittium's waste utilization rate was 99 percent last year (goal > 95%).

In the training to increase the environmental awareness of the personnel, the focus was especially on improving energy efficiency.

Social Issues and Employees

Personnel

Bittium does not allow discrimination or unequal treatment based on gender, age, origin, religion, or belief, opinion, sexual orientation, disability, or any other reason related to the person. The realization of equality is examined, for example, with the help of personnel surveys and research from the perspective of salary, career development and recruitment. The central measure of the annual personnel survey was the personnel engagement index, the result of which was 3.7 (scale 1–5), which reached the set goal. Personnel training is central to Bittium from the perspectives of both maintaining expertise and strengthening specialized expertise.

The most typical work ability risks in the field are musculoskeletal disorders, coping at work and mental well-being. Bittium invests in good work ergonomics and occupational health care services that support the well-being of the personnel, as well as other personnel benefits. In 2022, 3 workplace accidents were reported in Bittium's Finnish companies, none of which resulted in incapacity for work.

Respect for Human Rights and Fighting Corruption and Bribery

Bittium respects human rights in all its business operations, avoids violating human rights and intervenes in possible negative human rights impacts caused by its operations in accordance with the UN's guiding principles for companies and human rights. At Bittium, monitoring the realization of human rights is mainly related to the activities of subcontractors and suppliers. Bittium takes care of the responsibility of the company's supply chain, e.g., in terms of supplier requirements and material reports related to materials and components. Personnel training is part of ensuring responsible procurement. During 2022, Bittium has not been notified of any suspicions related to minerals in conflict areas.

Because of Bittium's market and business areas, corruption is one of the key risks related to social responsibility. Bittium does not accept any form of bribery or corruption in its own operations or those of its partners. The company has internal and external guidelines drawn up to prevent anti-corruption activities, and an electronic self-study module on anti-corruption activities has been implemented for new employees. The company uses a monitoring tool to identify corruption or other ambiguities of partners, and the company's stakeholders have a channel where they can anonymously report violations of anti-corruption rules. In 2022, the company did not become aware of any suspected corruption.

During 2022, Bittium developed its reporting channel procedures by establishing its own whistleblowing channel, through which employees and stakeholders outside the company can report their justified suspicions about abuses concerning the company's operations. The channel will be commissioned in 2023.

EU Taxonomy Disclosure

The EU Taxonomy

To reach the goal of EU Green Deal and EU's climate and energy targets for 2030, EU Taxonomy Regulation was published to establish a classification scheme for economic activities based on their environmental sustainability. It sets six environmental objectives and requires all companies falling within the scope of the Non-Financial Reporting Directive to report certain indicators detailing the extent to which their activities are sustainable according to these objectives and criteria.

Bittium's approach to Taxonomy alignment and Taxonomy eligibility

Bittium has determined the taxonomy-eligible economic activities and aligned activities by the following process:

- Identifying economic activities and processes across the business of the Bittium as per NACE classification (Classification according to the Statistical Classification of Economic Activities in the European Community).
- Evaluating whether the identified economic activities are suitable to the economic activity descriptions included in the Annex I and II of the Climate Delegated Act. When suitable, such activities are determined as taxonomy-eligible activities.

- Assessing whether the identified eligible activities meet the substantial contribution criteria, ''Do No Significant Harm'' (DNSH) criteria and determining compliance with minimum safeguards.

From the activities included in the Annex I and II of the Climate Delegated Act, Bittium has identified that 8.1 Data processing, hosting and related activities for environmental objective 1 (Climate mitigation), 8.1 Data processing, hosting and related activities and 8.2 Computer programming, consultancy and related activities for objective 2 (Climate adaptation) are Taxonomy-eligible Bittium business activities.

Bittium solutions that offers data hosting and processing services are carefully reviewed against the 8.1 description. Bittium took strict interpretation and determined that the solutions that use Bittium's own data center are suitable to this description, therefore taxonomy-eligible. Bittium couldn't validate with sufficient documented evidence in what extent our current activity meets the requirements defined in Substantial contribution criteria. Therefore, it concluded that its activity is eligible but not taxonomy-aligned.

In addition to computer programing related design and develop own products, Bittium offers varieties of information technologies expertise and services. Such computer programming and consultancy related activities are reviewed against 8.2 description and determined taxonomy-eligible. Such activities include, for example, software development, connectivity solution development, research, and consultation services. Bittium couldn't validate with sufficient documented evidence that any of these activities meets the Substantial contribution criteria. Therefore we took conservative interpretation and determined these are not taxonomy-aligned activities.

Accounting policy for financial KPI

Bittium did not identify taxonomy-aligned activities, so the taxonomy-aligned turnover, capital expenditure, and operating expenditure is 0% and therefore not presened as a table.

Turnover

- Bittium has calculated turnover as defined by Disclosure Delegated Act, based on the same accounting principles that applies for revenue in IFRS 15.
- Bittium has determined all services-based net sales can be classified as taxonomy eligible turnover related to 8.2 Computer programming, consultancy and related activities. Also, data hosting and processing services that uses Bittium own data center can be classified as taxonomy eligible turnover related to 8.1 Data processing, hosting and related activities.

Capital Expenditure

- Bittium has calculated Capital Expenditure as defined by Disclosure Delegated Act, and determined absolute CapEx used in taxonomy reporting as its gross investments.
- Bittium has determined that it's investments to measuring devices for service-based business can be classified as taxonomy eligible CapEx. These investments are reported only in company level. For that reason, the proportion of investments for service-based business is determined using the proportion of service-based net sales from total net sales.

Operation Expenditure

- Bittium has calculated Operation Expenditure as defined by Disclosure Delegated Act, and determined that it's calibration and maintenance costs for measuring devices can be classified as taxonomy eligible OpEx.
- Bittium has determined that it's calibration and maintenance costs for measuring devices that are used by service-based business can be classified as taxonomy eligible OpEx. These costs are reported only in company level. For that reason, the proportion of costs for service-based business is determined using the proportion of service-based net sales from total net sales.

Bittium continues to develop taxonomy assessment and reporting practice in 2023. It will also keep monitoring regulatory developments of final technical screening criteria for the four remaining taxonomy objectives and further reporting guidance by EU. Bittium is working towards increasing the share of sustainable business practices. Together with expanded scope and further clarification of reporting rules, Bittium expects the share of eligible and aligned activities to increase in future.

Sales Revenue

Economic activities	Codes	Abosolute OpEx	Proportion of turnover	Substantial Contribution Criteria: 1. Climate change mitigation	2. Climate change adaptation	3. Water and marine resources	4. Circular economy	5. Pollution	6. Biodiversity and ecosystems	DNSH Criteria: 1. Climate change mitigation	2. Climate change adaptation	3. Water and marine resources	4. Circular economy	5. Pollution	6. Biodiversity and ecosystems	Compliance with minimum safeguards	Taxonomy-aligned sales revenue	Category (enabling/transitional)
		M€	%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E/T
A. TAXONOMY-ELIGIBLE ACTIVITIES																		
A.1 Environmentally sustainable activities (taxonomy-aligned)																		
Not found		0.00	0.0															
Turnover of environ-mentally sustainable activities (taxonomy-aligned) (A.1)		0.00	0.0															
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																		
8.1 Data processing, hosting and related activities	8.1	0.07	0.00															
8.2 Computer program-ming, consultancy and related activities	8.2	25.10	30.00															
Turnover of Taxonomy-eligible but not environ-mentally sustainable activities (not Taxonmy-aligned activities)		25.17	30.0															
Total (A1 + A2)		25.17	30.0															
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																		
Turnover of Taxonomy-non-eligible activities		57.42	70															
Total (A + B)		**82.50**	**100**															

Capital Expenditure

				Substantial Contribution Criteria						DNSH Criteria								
Economic activities	Codes	Abosolute OpEx	Proportion of turnover	1. Climate change mitigation	2. Climate change adaptation	3. Water and marine resources	4. Circular economy	5. Pollution	6. Biodiversity and ecosystems	1. Climate change mitigation	2. Climate change adaptation	3. Water and marine resources	4. Circular economy	5. Pollution	6. Biodiversity and ecosystems	Compliance with minimum safeguards	Taxonomy-aligned sales revenue	Category (enabling/transitional)
		M€	%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E/T
A. TAXONOMY-ELIGIBLE ACTIVITIES																		
A.1 Environmentally sustainable activities (taxonomy-aligned)																		
Not found		0.00	0.0															
CapEx of environ-mentally sustainable activities (taxonomy-aligned) (A.1)		0.00	0.0															
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																		
8.1 Data processing, hosting and related activities	8.1	0.00	0.00															
8.2 Computer program-ming, consultancy and related activities	8.2	0.20	2.00															
CapEx of Taxonomy-eligible but not environ-mentally sustainable activities (not Taxonomy -aligned activities)		0.20	0.0															
Total (A1 + A2)		0.20																
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																		
CapEx of Taxonomy-non-eligible activities		9.30	98															
Total (A + B)		**9.50**	**100**															

Operational Expenditure

				Substantial Contribution Criteria						DNSH Criteria								
Economic activities	Codes	Abosolute OpEx	Proportion of turnover	1. Climate change mitigation	2. Climate change adaptation	3. Water and marine resources	4. Circular economy	5. Pollution	6. Biodiversity and ecosystems	1. Climate change mitigation	2. Climate change adaptation	3. Water and marine resources	4. Circular economy	5. Pollution	6. Biodiversity and ecosystems	Compliance with minimum safeguards	Taxonomy-aligned sales revenue	Category (enabling/transitional)
		M€	%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E/T
A. TAXONOMY-ELIGIBLE ACTIVITIES																		
A.1 Environmentally sustainable activities (taxonomy-aligned)																		
Not found		0.00	0.0															
OpEx of environmentally sustainable activities (taxonomy-aligned) (A.1)		0.00	0.0															
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																		
8.1 Data processing, hosting and related activities	8.1	0.00	0.00															
8.2 Computer programming, consultancy and related activities	8.2	0.09	30															
OpEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonmy-aligned activities)		0.00	0.0															
Total (A1 + A2)		0.09																
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																		
OpEx of Taxonomy-non-eligible activities		0.22	70															
Total (A + B)		**0.31**	**100**															

Personnel

The Bittium group employed an average of 641 people in January–December 2022 (664 employees). At the end of December 2022, the company had 625 employees (653 employees).

Changes in the Company's Management

Mr. Antti Näykki (45 years), B.Eng. Embedded Systems, was appointed as Senior Vice President, Medical Technologies Product and Service Area in Bittium Corporation and as a member of Bittium Corporation's Management Group, effective on February 1, 2022. Mr. Näykki has worked at Bittium since 2019, among other things, as responsible for business development, and as the head of the Medical Technologies product management. In his new position as Senior Vice President of Medical Technologies Product and Service Area, he reports to Mr. Hannu Huttunen, CEO of Bittium Corporation. Prior to Bittium, Mr. Näykki worked as Managing Director of Jutel Oy and in various sales and management positions at Exfo and Nethawk.

Mr. Arto Pietilä, the Senior Vice President of the Medical Technologies Product and Service Area and member of the Corporations' Management Group, retired in March 2022.

As of February 1, 2022, Bittium Corporation's management group consists of the following persons: Mr. Hannu Huttunen, CEO (Chairman); Mr. Pekka Kunnari, CFO; Mr. Kari Jokela, CLO; Mrs. Karoliina Malmi, Vice President Communications and Marketing; Mr. Jari Sankala, Senior Vice President Defense & Security; Mr. Tommi Kangas, Senior Vice President Connectivity Solutions; Mr. Antti Näykki, Senior Vice President Medical Technologies; and Mr. Jari-Pekka Innanen, Vice President, Engineering.

On October 17, 2022, Mr. Hannu Huttunen, the CEO of Bittium Corporation announced that he will leave his position as a CEO of the Company. The Board of Directors of Bittium Corporation initiated a search for a new CEO with the goal of having a new CEO selected by the beginning of next year. Mr. Hannu Huttunen will continue in his position until then with the full support of the Company's Board of Directors. It has been agreed that Mr. Huttunen will continue as an Advisor to the Company's Board of Directors until the end of 2023.

On December 9, 2022, the Board of Directors of Bittium Corporation appointed Mr. Johan Westermarck, Lic. Sc. (Econ), M.Sc. (Eng), as the Company's CEO as of April 1, 2023. Mr. Westermarck has most recently served as CEO of Citec Group Oy Ab. Before this, Westermarck worked in several business management positions, such as the CEO of Maintpartner Group and management positions in the business operations of Eltel Networks Oy and Ahlstöm Machinery Oy. The current CEO of Bittium Corporation, Hannu Huttunen will continue in his position until March 31, 2023, after which he will continue as an advisor to the company's Board of Directors until the end of 2023.

Incentive Systems

Employee Profit-Sharing Plan

In 2022, Bittium had an employee profit-sharing plan that applies to all employees, excluding those covered by other short-term bonus plans. According to the 2022 profit-sharing plan, a separately defined part of Bittium's operating profit will be distributed to employees as a profit-sharing bonus in proportion to salaries. The goal of the system is to enable the company's success to be shared with employees and to engage employees.

Variable Pay

The variable pay is paid based on the achievement of goals. In 2022, earning period for the variable pay was the calendar year. The targets are determined separately for each earning period. The setting of targets and the review of their achievement is decided on a one-over-one basis. The criteria for the short-term merit pay are the financial and strategic targets of the Company. In addition, part of the targets can be personal targets, which may vary between duties. The scope of the variable pay system includes company executives. In addition, those working in sales positions have separate reward systems related to sales goals.

Management Share-Based Incentive Plan

The management of the Bittium group's share-based long-term incentive scheme comprises a Performance Share Plan ("PSP"). The objectives of the Performance Share Plan are to align the interests of Bittium's management with those of the Company's shareholders and, thus, promote shareholder value creation in the long term, commit the management to achieve Bittium's strategic targets, and the retention of Bittium's management. The Performance Share Plan consists of three annually commencing three-year performance share plans, PSP 2020–2022, PSP 2021–2023, and PSP 2022–2024, each with a one-year performance period, which is followed by the payment of the share reward and a two-year transfer restriction period. The commencement of each plan is, however, subject to a separate Board decision. Further information can be found on the company's internet pages at the address **www.bittium.com**.

On February 10, 2022, the Board of Directors of Bittium Corporation decided on the new period in the share-based long-term incentive scheme for the Bittium group's management. The members of Bittium's Management Group are eligible to participate in the third PSP 2022–2024 plan. The performance measures based on which the potential share reward under PSP 2022–2024 will be paid are the revenue growth and cash flow before the financial items of Bittium. A precondition for the payment of the share reward is, in addition, that the employment relationship of the participant with Bittium continues at the time the reward is paid. The potential reward will be paid in shares of Bittium. If all the performance targets set for the third plan, PSP 2022–2024, are fully achieved, the aggregate maximum number of shares to be paid based on this second plan is approximately 122,100 shares (gross before the withholding of the applicable payroll tax). The aggregate gross value of PSP 2022–2024, estimated based on the volume-weighted average quotation of Bittium's share during the period H2/2021, is approximately EUR 0.7 million.

On March 24, 2022, Bittium Corporation's Board of Directors decided on the payment of the Company's share-based incentive system's share bonuses to the Company's management. Share premiums were paid in Bittium Corporation shares that can be acquired at the price formed in public trading. The decision was about the second Performance Share Plan (PSP 2021–2023) of the share-based incentive scheme. In the Share Issue, 13,467 new shares of the Company were issued without consideration to the management entitled to share rewards according to the terms and conditions of the share-based incentive scheme. A total of eight (8) persons from the Company's management group were in the target group of the payment.

Authorizations of the Board of Directors at the End of the Reporting Period

Authorizing the Board of Directors to Decide on the Repurchase of the Company's own Shares

The General Meeting authorized the Board of Directors to decide on the repurchase of the company's own shares as follows.

The number of own shares to be repurchased shall not exceed 3,500,000 shares, which corresponds to approximately 9.80 percent of all of the shares in the company as of the date of the General Meeting. Only the unrestricted equity of the company can be used to repurchase its shares based on authorization. Own shares can be repurchased at a price formed in public trading on the date of the repurchase or otherwise at a price formed on the market. The Board of Directors decides how their shares will be repurchased. Own shares can be repurchased using, inter alia, derivatives. Own shares can be repurchased otherwise than in proportion to the shareholdings of the shareholders (directed repurchase).

The authorization cancels the authorization given by the General Meeting on April 14, 2021, to decide on the repurchase of the company's own shares.

The authorization is effective until June 30, 2023.

Authorizing the Board of Directors to Decide on the Issuance of Shares as well as the Issuance of Special Rights Entitling to Shares

The General Meeting authorized the Board of Directors to decide on the issuance of shares and special rights entitling to shares referred to in Chapter 10 Section 1 of the Companies Act as follows.

The number of shares to be issued shall not exceed 3,500,000 shares, which corresponds to approximately 9.80 percent of all of the shares in the company as of the date of the General Meeting. The Board of Directors decides on all the conditions of the issuance of shares and special rights entitling to shares. The authorization concerns both the issuance of new shares as well as the transfer of treasury shares. The issuance of shares and special rights entitling to shares may be carried out in deviation from the shareholders' pre-emptive rights (directed issue).

The authorization cancels the authorization given by the General Meeting on April 14, 2021, to decide on the issuance of shares as well as the issuance of special rights entitling to shares referred to in Chapter 10 Section 1 of the Companies Act.

The authorization is effective until June 30, 2023.

Shares and Shareholders

The shares of Bittium Corporation are quoted on Nasdaq Helsinki. The Company has one series of shares. All shares entitle their holders to dividends of equal value. Each share has one vote. The share does not have a nominal value. The Company's shares have been entered into the Euroclear Finland Ltd.'s book-entry securities system.

At the end of the financial period, the fully paid share capital of the Company entered into the Finnish Trade Register was EUR 12,941,269.00 and the total number of the shares was 35,702,264. The accounting par value of the Company's share is EUR 0.10. The Company does not have its own shares in its possession.

Market Values of Shares

MARKET VALUES OF SHARES (EUR)	1–12/2022 12 months	1–12/2021 12 months
Highest	6.08	7.89
Lowest	3.47	4.93
Average	4.71	6.18
At the end of period	3.98	5.30
Market value of the stock (MEUR)	141.9	189.2
Trading value of shares (MEUR)	44.0	83.2
Number of shares traded (1,000 pcs)	9,346	13,464
Related to average number of shares, %	26.2	37.7

Shareholders

LARGEST SHAREHOLDERS, DECEMBER 31, 2022	Number of shares	% of shares
1. Veikkolainen Erkki	1,817,665	5.09%
2. Ponato Oy	1,501,300	4.21%
3. Hulkko Juha	1,419,370	3.98%
4. Varma Mutual Pension Insurance Company	1,365,934	3.83%
5. Ilmarinen Mutual Pension Insurance Company	1,296,529	3.63%
6. Skandinaviska Enskilda Banken AB	740,314	2.07%
7. Special Investment Fund Aktia Mikro Markka	700,000	1.96%
8. Hildén Kai Jalmari	658,000	1.84%
9. Citibank Europe PLC	590,119	1.65%
10. Elo Mutual Pension Insurance Company	500,000	1.40%

At the end of December 2022, Bittium Corporation had 21,927 shareholders. The ten largest shareholders owned 29.7 percent of the shares. Private ownership was 70.1 percent. The percentage of foreign and nominee-registered shareholders was 4.1 percent at the end of December 2022.

Flagging Notifications

On October 26, 2022, Bittium Corporation received a notification under Chapter 9, Section 5 of the Finnish Securities Market Act (FSMA), according to which Mr. Erkki Veikkolainen had acquired 40,000 shares in Bittium Corporation. In connection with the completion of the share purchase, Mr. Erkki Veikkolainen's aggregate amount of direct and indirect holdings in Bittium Corporation's shares and votes exceeded the five percent limit on October 25, 2022.

According to the notification, the aggregate holdings of Mr. Erkki Veikkolainen in Bittium Corporation on October 25, 2022, amounted to a total of 1,817,665 shares, corresponding to 5.09 percent of the total number of shares and voting rights of Bittium Corporation. The share stock of Bittium Corporation consists of 35,702,264 shares, each entitling one vote.

The Board, Board Committees and the Auditor

The Annual General Meeting held on April 6, 2022, decided that the Board of Directors shall comprise five (5) members. Mr. Erkki Veikkolainen, Ms. Riitta Tiuraniemi, Mr. Veli-Pekka Paloranta, Mr. Petri Toljamo, and Mr. Pekka Kemppainen were re-elected as members of the Board of Directors for a term of office expiring at the end of the next Annual General Meeting.

At its assembly meeting held on April 6, 2022, the Board of Directors elected Mr. Erkki Veikkolainen as the Chairman of the Board of Directors. Further, the Board has resolved to keep the Audit Committee. Ms. Riitta Tiuraniemi (Chairman of the committee), Mr. Petri Toljamo and Mr. Veli-Pekka Paloranta were elected as members of the Audit Committee.

Ernst & Young Oy, authorized public accountants, was re-elected auditor of the company for a term of office ending at the end of the next Annual General Meeting. Ernst & Young Oy has notified that Mr. Jari Karppinen, APA, will act as the responsible auditor.

Corporate Governance Statement

The Board of Directors has issued the corporate governance statement separate from this report.

Dividend from 2021

In accordance with the proposal of the Board of Directors, the Annual General Meeting held on April 6, 2022, decided that, based on the balance sheet for the financial year January 1, 2021–December 31, 2021, a dividend of EUR 0.04 per share will be distributed. The dividend was paid to shareholders who on the dividend record date of April 8, 2022, were registered in the company's shareholders' register held by Euroclear Finland Oy. The dividend was paid on April 19, 2022. All the shares in the company were entitled to the dividend with the exception of shares possibly held by the company on the dividend record date.

Consolidated Statement of Comprehensive Income

Continuing operations, 1000 EUR	Notes	Jan. 1– Dec. 31, 2022	Jan. 1– Dec. 31, 2021
NET SALES	1, 3	**82,464**	**86,868**
Other operating income	4	2,740	2,594
Change in work in progress and finished goods			
Work performed by the undertaking for its own purpose and capitalized		496	530
Raw materials		-20,227	-23,311
Personnel expenses	7	-39,463	-38,992
Depreciation	6	-10,699	-10,452
Other operating expenses	5	-14,784	-13,923
Share of results of the associated companies	15	-185	-90
OPERATING PROFIT		**342**	**3,223**
Financial income and expenses	9	-761	-688
PROFIT BEFORE TAX		**-419**	**2,535**
Income tax	10	672	790
PROFIT FOR THE YEAR FROM CONTINUING OPERATIONS		**253**	**3,324**
Profit for the year from discontinued operations	2		
PROFIT FOR THE YEAR		**253**	**3,324**
Other comprehensive income:			
Items that will not be reclassified to statement of income			
Re-measurement gains (losses) on defined benefit plans			
Income tax effect			
Items that may be reclassified subsequently to the statement of income			
Exchange differences in translating foreign operations		212	231
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		**466**	**3,556**
Profit for the year attributable to			
Equity holders of the parent		253	3,324
Total		**253**	**3,324**
Total comprehensive income for the year attributable to			
Equity holders of the parent		466	3,556
Total		**466**	**3,556**
Earnings per share for profit attributable to the shareholders of the parent company	11		
Earnings per share from continuing operations, EUR			
Basic earnings per share		0.007	0.093
Diluted earnings per share		0.007	0.093
Earnings per share from discontinued operations, EUR			
Basic earnings per share			
Diluted earnings per share			
Earnings per share from continuing and discontinued operations, EUR			
Basic earnings per share		0.007	0.093
Diluted earnings per share		0.007	0.093
Average number of shares, 1000 pcs		35,702	35,700
Average number of shares, diluted, 1000 pcs		35,702	35,700

Consolidated Statement of Financial Position

1000 EUR	Notes	Dec. 31, 2022	Dec. 31, 2021
Non-current assets			
Property, plant, and equipment	12	19,664	20,891
Goodwill	13	5,836	5,823
Intangible assets	13	50,114	49,943
Investments in associated companies	15	1,010	1,283
Other financial assets	16	112	112
Non-current receivables	19	856	1,081
Deferred tax assets	17	7,416	6,745
Total		**85,008**	**85,878**
Current assets			
Inventories	18	24,196	18,837
Trade and other receivables	19	41,435	39,396
Financial assets at fair value through profit or loss	20	5,696	5,732
Cash and short-term deposits	21	13,320	16,306
Total		**84,647**	**80,272**
Total assets		**169,656**	**166,150**
Equity and liabilities			
Equity attributable to equity holders of the parent	22		
Share capital		12,941	12,941
Translation differences		1,318	1,106
Invested non-restricted equity fund		25,953	25,953
Retained earnings		75,561	76,814
Total		**115,774**	**116,815**
Non-controlling interests			
Total equity		**115,774**	**116,815**
Non-current liabilities			
Deferred tax liabilities	17	156	208
Interest-bearing loans and borrowings (non-current)	25	21,335	21,111
Other non-current liabilities, non-interest bearing	27	192	200
Total		**21,684**	**21,519**
Current liabilities			
Trade and other payables	27	26,427	23,140
Provisions	24	4,662	3,524
Interest-bearing loans and borrowings (current)	25	1,110	1,152
Total		**32,198**	**27,816**
Total liabilities		**53,882**	**49,335**
Total equity and liabilities		**169,656**	**166,150**

Consolidated Statement of Cash Flows

1000 EUR	Notes	Jan. 1– Dec. 31, 2022	Jan. 1– Dec. 31, 2021
Cash flow from operating activities			
Profit for the year from continuing operations		**253**	**3,324**
Profit for the year from discontinued operations			
Adjustments			
Effects of non-cash business activities	29	11,366	12,018
Finance costs	9	851	760
Finance income	9	-90	-71
Income tax	10	-672	-790
Change in net working capital			
Change in short-term receivables	19	-1,613	-13,063
Change in inventories	18	-4,571	1,905
Change in interest-free short-term liabilities	27	3,295	4,928
Interest paid on operating activities		-850	-753
Interest and dividends received from operating activities		90	71
Income taxes paid		-38	-51
Net cash from operating activities		**8,021**	**8,278**
Cash flow from investing activities			
Purchase of property, plant, and equipment	12	-955	-954
Purchase of intangible assets	13	-7,092	-7,457
Net cash from investing activities		**-8,047**	**-8,410**
Cash flows from financing activities			
Payment of finance lease liabilities	25		
Dividend paid and capital repayment	25, 26	-1,425	-1,375
Dividend paid and capital repayment		-1,428	-1,110
Purchases of own shares		-144	
Net cash from financing activities		**-2,997**	**-2,486**
Net change in cash and cash equivalents	21	**-3,023**	**-2,618**
Cash and cash equivalents on 1 January		22,039	24,657
Change in fair value of investments			
Cash and cash equivalents at the end of the year		**19,016**	**22,039**

Cash and cash equivalents include liquid and low risk financing securities.

Consolidated Statement of Changes in Equity

1000 EUR	Share capital	Invested non-restricted equity fund	Translation difference	Retained earnings	Non-controlling interests	Total
	Equity attributable to equity holders of the parent					
Shareholders' equity Jan. 1, 2022	**12,941**	**25,953**	**1,106**	**76,814**	**0**	**116,815**
Comprehensive income for the period						
Profit for the period				253		253
Exchange differences on translating foreign operations			212			212
Total comprehensive income for the period	**0**	**0**	**212**	**253**	**0**	**466**
Transactions between the shareholders						
Dividend distribution				-1,428		-1,428
Purchases of own shares				-144		-144
Share-related compensation				74		74
Total transactions between the shareholders				-1,498		-1,498
Other changes				-9		-9
Shareholders' equity Dec. 31, 2022	**12,941**	**25,953**	**1 318**	**75,561**	**0**	**115,774**
Shareholders' equity Jan. 1, 2021	**12,941**	**25,953**	**874**	**74,478**	**0**	**114,247**
Comprehensive income for the period						
Profit for the period				3,324		3,324
Exchange differences on translating foreign operations			231			231
Total comprehensive income for the period	**0**	**0**	**231**	**3,324**	**0**	**3,556**
Transactions between the shareholders						
Dividend distribution				**-1,110**		-1,110
Share-related compensation				114		114
Total transactions between the shareholders				-996		-996
Other changes				**8**		**8**
Shareholders' equity Dec. 31, 2021	**12,941**	**25,953**	**1,106**	**76,814**	**0**	**116,815**

Notes to the Consolidated Financial Statements

Corporate Information

The company's field of activities is the development, production and selling of software, equipment and other products for the automotive and electronics industry, the production of R&D services and other services as well as other industrial operations. The company may administer product and other rights and conduct research and development operations, hold and trade securities and real-estate and conduct other investment activities.

The parent company of the Group is Bittium Corporation, which is a Finnish public company. The parent company is domiciled in Oulu and its registered address is Ritaharjuntie 1, 90590 Oulu.

Accounting Principles for the Consolidated Accounts

Basis of Preparation

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) as well as the SIC and IFRIC interpretations in force on December 31, 2022. The financial statements are presented in thousands of euros. The consolidated financial statements have been prepared on a historical cost basis unless otherwise indicated.

The auditor has not certified or audited the 2022 ESEF financial statements prepared in accordance with the European Commission's technical regulatory standard to be published in accordance with Chapter 7, Section 5 of the Securities Markets Act.

Consolidation Principles

The consolidated financial statements of Bittium include the financial statements of the parent company Bittium Corporation and its subsidiaries.

Subsidiaries

The consolidated financial statements include Bittium Corporation and its subsidiaries' financial statements. Subsidiaries are companies in which the Bittium Corporation has a controlling interest. A controlling interest arises when the Group holds more than half of the voting rights or it otherwise has the power to govern the financial and operating policies of the entity. The existence of potential voting rights is taken into account in assessing the conditions under which control arises whenever instruments conferring potential voting rights can be exercised at the review date.

Associated Companies

An associated company is a company in which the Group has a significant influence. A significant influence exists, when the Group has a right to participate in the decision-making regarding financing or operative business of the associated company but has no sole or common control of such decisions. In the consolidated financial statements, the investments in the associated companies are accounted for using the equity method according to the IAS 28 Investments in Associates and Joint Ventures Joint Arrangements standard. The investment in associated companies is recorded using the acquisition price, adjusted for the Group's share of changes in the associated companies' equity after the date of acquisition. If the Group's share of associated companies' losses exceeds the carrying amount of the investment, the investment in the associated company in the balance sheet shall be written off. The losses exceeding the carrying amount are consolidated only if the Group has a binding obligation of covering the associated companies' liabilities. Investments in the associated companies include the goodwill emerging upon the acquisition. The unrealized profits or losses between the Group and the associated companies are eliminated according to the share of the Group's ownership.

The Group's share of results in the associated companies is recorded as an item above the operating result if the result arises from the operative business. The Group's share of associated companies' other comprehensive income is recorded in the other items of comprehensive income in the consolidated statement of profit and loss.

The carrying value of investments in the associated companies is tested by comparing the carrying amount and the recoverable amount of the associated companies. An impairment loss is recognized if the carrying amount of the investment in associated companies exceeds the recoverable amount. An impairment loss is recognized in the income statement.

Elimination of Intra-Group Transactions

Intra-Group share ownership has been eliminated by means of the purchase method. Acquired subsidiaries are included in the consolidated financial statements from the time when the Group has obtained control and divested subsidiaries up to the time when control ceases. The excess of the acquisition cost of the subsidiary shares over the fair value of the net assets acquired is allocated partly to the identifiable assets and liabilities. Any excess is recorded as goodwill. For business combinations that occurred before the implementation of IFRS, in 2004, the carrying amount of the goodwill has been treated according to the Finnish GAAP in accordance with the exemption under IFRS 1. According to IFRS goodwill is not amortized but tested annually for impairment.

Intra-Group transactions, receivables, liabilities and margins are eliminated in the preparation of the consolidated financial statements.

Foreign Currency Transactions

Figures relating to the financial statements of Group entities are measured in the currency that is the currency of each entity's main operating environment ("functional currency"). The consolidated financial statements are presented in euros, which is the functional currency of the Group's parent company.

Transactions denominated in foreign currency are recorded in euros using the exchange rate on the date of the transaction. Monetary items denominated in foreign currency are translated to euros using the European Central Bank exchange rates at the balance sheet date. Gains and losses arising from transactions denominated in foreign currency and the translation of monetary items are recorded in the income statement.

Income statements and cash flows of subsidiaries, whose functional and reporting currency is not the euro, are translated into euros at the average exchange rates during the financial period. Their balance sheets are translated at the exchange rates prevailing at the balance sheet date. Translating the profit for the period using different rates in the income statement and the balance sheet leads to a translation difference that is recorded in equity. The translation differences arising from the elimination of the cost of foreign subsidiaries are recorded in equity. When a subsidiary is sold, the cumulative translation differences are entered into the income statement as part of the capital gain or loss.

Cumulative exchange differences arising from the translation of internal long-term loans, which are in actual terms net investments in foreign operations, are taken directly to a separate component of equity.

The goodwill arising from the acquisition of foreign operations as well as fair value adjustments made to the carrying amounts of the assets and liabilities of said foreign operations in connection with an acquisition are treated as the assets and liabilities of said foreign operations and translated to euros using the exchange rates at the balance sheet date.

Property, Plant and Equipment

Property, plant, and equipment are measured at historical cost less depreciation and impairment losses. Assets of acquired companies are stated at their fair values at the date of acquisition.

Assets are depreciated using the straight-line or reducing balance method over their useful life.

The residual value of assets and their useful life are reviewed periodically in connection with each set of financial statements and the interim report and, if necessary, they are adjusted to reflect changes that have occurred in the expectations for the asset's useful life. Ordinary repair and maintenance costs are charged to the income statement during the financial year in which they incurred. Gains and losses on sales and disposals are determined by comparing the received proceeds with the carrying amount and are included in the operating profit.

Intangible Assets

Goodwill

After January 1st, 2004, the cost of goodwill is the excess of the cost of the business combination over the acquirer's interest in the net fair value of the identifiable assets. The goodwill arising from the business combinations prior to this represents the amount recorded under previous GAAP, which has been used as the deemed cost. The classification and accounting treatment of these business combinations has not been adjusted when the Group's opening IFRS balance sheet has been prepared.

Goodwill is tested annually or, if necessary, more frequently to determine any impairment. For this purpose, goodwill has been allocated to cash-generating units. The recoverable amount of a cash generating unit is compared to its carrying amount and an impairment loss is recognized if the carrying amount of the assets exceeds the recoverable amount. An impairment loss is recognized in the income statement.

Research and Development Expenditure

Research expenditures are recorded as an expense as they are incurred. Expenditure on development activities is capitalized if they meet the criteria defined in IAS 38 Intangible Asset. Capitalized development expenses include mainly materials, supplies and direct labor costs. They are amortized on a systematic basis over their expected useful lives.

Capitalized development expenses are reviewed for potential impairment regularly by comparing the carrying amount to their recoverable amount. Significant changes in the technological environment are taken into account. If the carrying amount of the development expenses is greater than the recoverable amount, an impairment loss is recognized immediately.

Other Intangible Assets

Patents, trademarks, licenses, and other intangible assets having a finite useful life are entered in the balance sheet and the amortized expense is recorded in the income statement over their useful life. If indications on possible impairment exist, the recoverable amount is determined and an impairment loss is recognized if necessary. Intangible assets with an indefinite useful life are not amortized but tested annually or, if necessary, more frequently to determine any impairment.

Inventories

Inventories are stated at the lower of initial cost or net realizable value. Net realizable value is the estimated selling price in the normal course of business less the estimated costs of sale. The value of raw material inventory is determined using a weighted average cost formula. The initial cost of finished and semi-finished products comprise raw material, direct labor, and other direct expenses as well as an appropriate share of fixed and variable production overheads, based on the normal capacity of the production facilities.

Borrowing Costs

Borrowing costs are recognized in the income statement as they accrue, according to the existing IFRS standards.

Government Grants

Government grants are recognized when there is reasonable assurance that Group will comply with the conditions attaching to them and the grant will be received. Government grants received from public corporations are presented as other income in the income statement.

Leases

According to the IFRS 16 Leases standard, in principle all lease contracts of the Group are recognized as assets and liabilities in Group's Balance Sheet. When the Group is a lessee, lease liabilities are recognized at the present value of the future lease payments at the contact date which the leased asset is available for use by the group. Lease payments are discounted by using lessee's incremental borrowing rate. Corresponding asset to the lease liability is recognized on the historical cost basis. According to the historical cost basis model, depreciation and amortization costs are deducted from the initially recognized right-of-use asset. When adjustments to lease payments take effect, the lease liability is reassessed and adjusted against the right-of-use asset.

The Group determines the lease term as a period when a lease contract cannot be terminated. In determining the lease term, all facts and circumstances are considered that create an economic incentive to exercise an extension option, or not exercise a termination option. The Group adjusts the lease term if the period when a lease contract cannot be terminated changes. Payments associated with short-term leases and all leases of low-value assets may be recognized on a straight-line or other systematic basis as an expense in profit or loss.

The right-of-use assets are presented within the same line item as the corresponding underlying assets would be presented if they were owned. Lease liabilities are included in interest-bearing liabilities.

Impairment of Assets

At each balance sheet date (including interim reports) the Group estimates whether there is any indication that an asset may be impaired. If any such indication exists, the recoverable amount of the asset is estimated. The recoverable amount is estimated annually regardless of any indication of impairment to the following assets: investments, goodwill, intangible assets with an indefinite useful life and for intangible assets which are not yet ready for use. The recoverable amount is based on the future discounted net cash flows, which are equivalent with the expected cash flows generated by the asset.

An impairment loss is recognized whenever the carrying amount of an asset exceeds its recoverable value. The loss is booked to the income statement. A previously recognized impairment loss is reversed only if there has been a change in the estimates used to determine the recoverable amount. However, the reversal must not cause that the adjusted value is higher than the carrying amount that would have been determined if no impairment loss had been recognized in prior years. Impairment losses recognized for goodwill will under no circumstances be reversed.

Employee Benefits

Pension Liabilities

Group companies in different countries have pension plans in accordance with local conditions and practices. The plans are classified as either defined contribution plans or defined benefit plans.

In Finland, the Group has organized pension coverage for its staff through independent pension insurance companies. The Finnish system under the Employees' Pensions Act and the disability portion are treated as a defined contribution plan. The contributions to defined contribution plans are charged to the income statement in the year to which they relate. After this, the Group has no other obligations for additional payment. Also, the pension arrangements of the foreign subsidiaries are classified as defined contribution plans.

Share-Based Payment

The Group has applied IFRS 2 Share-Based Payment standard. The Group has incentive plans in which part of the remuneration for the Board of Directors is paid in shares of Bittium. The managing directors of the Group also have an incentive plan in which the fair value of equity-settled share-based payments granted are recognized as an employee expense with a corresponding increase in equity. The fair value of cash-settled share-based payments is valued at each reporting period closing date and the changes in fair value of liability are recognized as an expense when incurred. The fair value is measured at the grant date and spread over the vesting period during which the employees become unconditionally entitled to the awards. Share-based incentives are measured at fair value at the time they are granted and entered as an expense in the income statement when the right is granted.

Provisions

A provision is recognized when the Group has a legal or constructive obligation as a result of a past event, it is probable that a payment obligation will be realized or cause a financial loss and the amount of the obligation can be estimated reliably. Provisions can arise from restructuring plans, onerous contracts, warranty repairs and allowances and from environmental, litigation or tax risks.

The amount recognized as a provision is the best estimate of the expenditure required to settle the present obligation at the balance sheet date. If the time value of money is material, provisions will be discounted.

If a reimbursement can be obtained from a third party for part of the obligation, the reimbursement is treated as a separate asset when it is virtually certain that the reimbursement will be received.

Taxes

Tax expense in the Group's income statement comprises the current tax and change in deferred taxes of each group company. Current tax is calculated based on the taxable income using the tax rate that is enacted in each country at the balance sheet date.

Deferred tax liability is calculated on the temporary differences between the carrying amounts and the amounts used for taxation purposes. Deferred tax assets are recognized for deductible temporary differences and tax losses to the extent that it is probable that taxable profit will be available against which tax credits and deductible temporary differences can be utilized. In calculating deferred tax liabilities and assets, the tax base which is in force at the time of preparing the financial statements or which has been enacted by the balance sheet date for the following period, has been applied.

Revenue Recognition

Bittium identifies and reviewes the customer contracts and the revenue recognition principles for the different contract elements using the five step method presented in IFRS 15. According to Bittium principles, the signed contracts and purchase orders are customer contracts in accordance with IFRS 15. Frame contracts and Letters of intent can be classified as customer contracts only when the conditions of the contract are otherwise fully in accordance with the IFRS 15.

Bittium has recognized following IFRS 15 contract elements: product and license sales, sales of R&D services, maintenance and support services of products and extended warranties of the products. Bittium has listed prices for the products and their maintenance and support services as well as for their extended warranties. If the contract does not define a single price of a contract element, the price can be estimated using the market price method or using a cost base method. The prices for the sales of services are defined in each service contract. Bittium has not activated any costs of gaining a contract nor has it allocated them for the projects or products as part of the revenue to be recognized. These additional costs have been minor and the possible assets borne as a result would have a depreciable lifetime of less than one year.

The revenue of the services is recognized as the service has been performed. In this case, the contract element is delivered over time. Revenue from long-term construction contracts is recognized based on the stage of completion when the outcome of the project can be reliably measured. The stage of completion is measured by using the cost-to-cost method under which the percentage of completion is defined as the ratio of costs incurred to total estimated costs. This requires accurate forecasting of future sales and costs during the lifetime of the contract. The forecasts are a basis for the revenue recognized and they contain the latest estimates of the contract sales, costs, and the risks related to the contract. The forecasts are also subject to remarkable changes due to possible changes in contract scope, cost estimate changes, and changes in customers' plans as well as other factors affecting the forecast.

The revenue of product sales is recognized when the significant risks and rewards normally connected with ownership, have been transferred to the buyer. Neither the Group retains a continuing managerial involvement to the degree usually associated with ownership, nor effective control of these goods. In this case, the contract element is transferred at a point in time. Sales are presented net of indirect sales taxes and discounts.

In case Bittium receives prepayments from customers, the income related to them is recognized according to the abovementioned principles. For product warranties Bittium makes warranty provisions that are reversed over time during the warranty periods. The extended warranties paid separately are accrued as income over time during the warranty period.

The following matrix states the different aspects of estimating and classifying the revenue recognition of different contract elements:

Type of Contract	Contract Element	The Principle for Revenue Recognition and Possible Estimates
Sales of services	Customer contract, fixed price	Percentage of completion is defined as the ratio of costs incurred to total estimated costs.
Sales of services	Customer contract based on time, price per hours	Revenue is based on the work performed, recognition based on regular invoicing.
Product/licence sales	Product, off the shelf	The revenue based on product delivery as the customer has achieved control of the goods delivered.
Product/licence sales	Product, customized	The revenue based on product delivery as the customer has achieved control of the goods delivered. The customization work is accrued over time according to the percentage of completion or based on the time as mentioned above in the sales of services.
Product/licence sales	Product + maintenance	The revenue is based on product delivery as the customer has achieved control of the goods delivered. Maintenance accrued over the maintenance period.
Product/licence sales	Product support services	Over time, based on the work done.
Other contracts	Rental agreements	During the rental period, according to the rental agreement.

Assets Held for Sale and Discontinued Operations

The Group classifies a non-current asset or disposal as held for sale if its carrying amount will be recovered principally through a sale transaction rather than through continuing use. Non-current assets and asset items related to discontinued operations, which are classified as held for sale, are measured at the lower of their carrying amount and fair value less costs to sell. Depreciation and amortization on these asset items are discontinued at the time of classification. Profit after tax and gain on sale of discontinued operation is presented as a separate line item in the consolidated income statement.

Financial Assets, Financial Liabilities and Derivative Contracts

The hedge accounting according to the IFRS 9 Financial Instruments standard has not been applied for the financial statement period or for the comparative period.

As presented in IFRS 9, Bittium has three classes of financial assets and liabilities: those measured at amortized cost, financial assets and liabilities at fair value through other comprehensive income and financial assets, and liabilities at fair value through statement of income. The classification is made based on the business models and based on the analysis of cash flows. The financial assets and liabilities are classified as they are initially recorded. After this, no reclassifications are made unless the business model of asset management changes. At the financial statement date, Bittium had a marginal amount of financial assets other than those measured at amortized cost.

As an exception to this, the cash and short-term deposits include a low-risk short-term investment portfolio that is assessed at fair value through a statement of income.

The financial assets are written off when:
- The agreement-based right for the cash flows of the financial asset is terminated or;
- The group has either transferred all the relevant risks and rewards related to the financial assets or has transferred its control outside the group.

The Impairment of Financial Assets

IFRS 9 has a small effect on the assessment of group financial assets. Based on the simplified approach allowed by IFRS 9 standard the group assesses and writes off the amount of expected credit losses from accounts receivables. There are no significant financing components contained into Bittiums' accounts receivables.

For assessing the expected credit losses, Bittium applies a provision matrix that is based on historical realized loss rates adjusted by forward-looking estimates of the lifetime of accounts receivables. All the components of the provision matrix are updated for each reporting date. The expected credit losses are presented in the group of provisions in the balance sheet. The changes in the expected credit losses are presented in the profit and loss statement.

Cash and Short-Term Deposits

Cash comprises cash on hand, bank deposits, and other highly liquid investments with low risk. Assets classified as cash and short-term deposits have a maximum maturity of three months from the date of acquisition. Cash and bank deposits are measured at amortized cost, and the short-term investment portfolio is assessed at fair value through a statement of income.

Financial Liabilities

Financial liabilities include trade and other payables, loans, and other financial liabilities. All financial liabilities are measured at amortized cost. The loans are initially recognized at fair value. Transaction costs are entered in the profit and loss. Subsequently, the loans are measured at the amortized cost by using the effective interest rate.

Financial liabilities are not reclassified after the initial recognition. Non-current financial liabilities are due after one year whereas current financial liabilities are due within one year.

Financial liabilities are disposed of as the liability related to the contract is declared void, canceled, or due. As the terms of the financial liability are substantially changed or when a new contract with the existing creditor is made, the change is entered as disposal of the old liability and as an entry of a new liability. The changes in the balance sheet values are entered through profit and loss.

Significant Accounting Estimates and Judgments

The preparation of financial statements requires management to make estimates and assumptions about the future that affects the reported amounts. Used estimates and assumptions are based on prior experience and presumptions, which reflect the circumstances and expectations prevailing at the time of the preparation of the financial statements. Materiality and judgment in assessing the effect of uncertainties and the application of accounting principles have been observed in the preparation of the financial statements.

The management has exercised judgment during the financial year in applying e.g. in assessing the future cost forecasts in the percentage of completion projects, assessing the value of intangible assets in business acquisitions, and also when assessing the future prospects of Group companies in conjunction with standards IAS 12 Income Taxes and IAS 36 Impairment of Assets. Based on the management judgment, the majority of the capitalized R&D investments are depreciated over their expected useful lives. Part of the capitalized R&D investments is depreciated based on the production amounts of the goods.

Financial statements may include non-recurring income or expenses that are not related to normal operative business or that occur only infrequently. Such items are among others sales profits or losses, substantial changes in asset values, like impairment or reversal of impairment, substantial restructuring costs, or other substantial items that are considered non-recurring by the management. The substantiality of the item is based on the item's euro amount and the relative share of the total value of the asset.

The Application of New and Revised IFRS Regulations

The consolidated financial statements are prepared in accordance with International Financial Reporting Standards (IFRS) effective at the end of the period. The new, revised, or amended IFRS regulations did not have a significant impact on the consolidated financial statements during the period. The other forthcoming revisions or amendments of the standards are not expected to have a significant impact on the consolidated financial statements.

Notes to the Consolidated Financial Statements

1. OPERATING SEGMENTS

Bittium has one reporting business segment, the Wireless business, that includes three product and service areas supporting each other. These areas are as follows: Defence & Security, Connectivity Solutions, and Medical Technologies.

The wireless business is focused on creating reliable and secure communication and connectivity solutions, as well as on developing healthcare technology solutions for biosignal measuring. For its customers, Bittium offers innovative products and solutions based on its product platforms and R&D services. Bittium also offers high-quality information security solutions for mobile devices and portable computers. For customers in biosignal measuring in the areas of cardiology, neurology, rehabilitation, occupational health, and sports medicine, Bittium offers healthcare technology products and services.

The highest operative decision-making body of the company is the Board of Directors of Bittium which is responsible for allocating resources to and evaluating the results of Bittium's operating segment. The income statement and balance sheet information of the Wireless business are equivalent to the corresponding information of the Bittium group.

Wireless

Geographical areas

Bittium operates in three geographical areas which are Europe, Americas and Asia. In presenting the geographical information, the revenue is based on the geographical location of customers. Geographical assets are based on the geographical location of the assets.

Geographical areas
Jan. 1–Dec. 31, 2022

1000 EUR	Finland	Other Europe	Americas	Asia	Eliminations	Group total
Net sales						
Sales to external customers	39,857	18,026	23,322	1,259		82,464
Non-current assets	77,372		220			77,592
Total non-current assets *)	**77,372**		**220**			**77,592**
*) does not include deferred tax assets						
Capital expenditure						
Tangible assets	-1,226		-1			-1,227
Intangible assets	171					171
Investments	-273					-273
Goodwill			13			13
Non-current receivables	-225					-225

Geographical areas
Jan. 1–Dec. 31, 2021

1000 EUR	Finland	Other Europe	Americas	Asia	Eliminations	Group total
Net sales						
Sales to external customers	41,391	15,615	29,334	528		86,868
Non-current assets	78,924		208			79,133
Total non-current assets *)	**78,924**		**208**			**79,133**
*) does not include deferred tax assets						
Capital expenditure						
Tangible assets	-1,879		-41			-1,919
Intangible assets	989					989
Investments	-224					-224
Goodwill			16			16
Non-current receivables	-125					-125

Information of primary customers

Group’s revenues from the 10 largest customers in period 1.1.–31.12.2022 were EUR 62.0 million (EUR 71.5 million in 2021) representing 75.1 per cent of the net sales (82.3 per cent in 2021).

Group had two customers in period 1.1.–31.12.2022 having income separately over 10 per cent of Group’s revenue. Income from these customers were EUR 26.6 million and EUR 16.6 million.

Notes to the Consolidated Financial Statements

2. DISCONTINUED OPERATIONS

In 2022 or the comparative period 2021 ,the Group did not have discontinued operations to be reported according to the IFRS standards.

3. NET SALES

1000 EUR	2022	2021
Services	25,054	23,815
Products	57,410	63,053
Other		
Total	**82,464**	**86,868**

The services include project sales with fixed prices and hourly rates.
The product sales include all the sales affected by products:
the sales of products, product maintenance, extended warranties, and licence sales.

Construction contracts

The contract revenue is recognized in the income statement in proportion to the stage of completion of the contract. The stage of completion is defined as the ratio of costs incurred to total estimated costs. The turnover of construction contracts is, depending on the contract elements, recognized over time or at a point in time. The principles of revenue recognition based on IFRS 15 are presented in detail in the accounting principles of the consolidated financial statements.

Income recognized from construction contracts	9,188	9,245
Net sales other	73,276	77,623
Total	**82,464**	**86,868**

Income recognized over time based on the stage of completion of long-term construction contracts	9,188	9,245
Revenue recognized from long-term construction contracts in progress amounted to	4,954	7,785
Advances received from long-term construction contracts recognized in the balance sheet amounted to	772	435
Receivables recognized from long-term construction contracts amounted to	1,382	1,421

The net sales by geographical areas is presented in the Note 1.

4. OTHER OPERATING INCOME

1000 EUR	2022	2021
Government grants	2,635	2,526
Other income	105	67
Total	**2,740**	**2,594**

5. OTHER OPERATING EXPENSES

External services	1,530	1,647
Voluntary staff expenses	1,190	963
Premises expenses	1,094	965
Travel expenses	1,048	422
IT expenses	3,096	3,287
Other expenses	6,826	6,640
Total	**14,784**	**13,923**
Expense relating to short-term leases under IFRS 16	157	150
More information about Leases in Note 12.		
Auditor's charges		
Ernst & Young		
Auditing	67	58
Tax advice	1	0
Other services	4	2
Total	**72**	**60**
Others		
Auditing	24	21
Tax advice	7	8
Other services		
Total	**30**	**29**

Notes to the Consolidated Financial Statements

1000 EUR	2022	2021
6. DEPRECIATIONS AND IMPAIRMENTS		
Depreciations		
Intangible assets		
Capitalized development expenditure	5,897	5,503
Intangible rights	430	351
Customer relations and technology	173	234
Other intangible assets	289	352
Tangible assets		
Buildings and constructions	753	735
Machinery and equipment	3,157	3,277
Total	**10,699**	**10,452**
Depreciation on property, plant, and equipment acquired by leases		
Buildings and constructures	358	395
Machinery and equipment	1,063	1,033
More information about Leases in Note 12.		

7. EMPLOYEE BENEFIT EXPENSES AND NUMBER OF PERSONNEL		
Number of personnel		
Average number of personnel during the fiscal period		
Continuing operations	641	664
Personnel expenses 1000 EUR		
Personnel expenses		
Managing Director	353	320
Board of Directors *	176	169
Other salaries and wages	36,650	37,146
Salaries capitalized to development expenses	-5,399	-5,776
Total	**31,780**	**31,860**
Pension expenses, defined contribution plans	6,422	5,854
Other personnel expenses	1,261	1,278
Total	**39,463**	**38,992**

*Including the share-based incentives. Further information in the Note 32.

1000 EUR	2022	2021
8. RESEARCH AND DEVELOPMENT EXPENSES		
The research and development expenses total	22,287	19,848
Capitalized to the balance sheet	-6,647	-7,009
Recognition as an asset	5,897	5,503
The expensed research and development expenses recognized in the income statement amounted to	**21,537**	**18,342**

9. FINANCIAL EXPENSES (NET)

Interest expenses	-390	-352
Interest income	17	
Dividend income	0	0
Exchange gains and losses	-309	-343
Change of financial assets and liabilities at fair value through profit or loss		
Other financial expenses	-152	-65
Other financial income	72	71
Total	**-761**	**-688**
Interest expenses on lease liabilities under IFRS 16	-22	-21

More information about Leases in Note 12.

10. INCOME TAXES

Income taxes, current year	-164	-1
Other taxes	-8	-8
Income taxes, previous years	-18	-21
Deferred taxes	862	819
Total	**672**	**790**

A reconciliation between the effective tax rate and domestic tax rate (20.0 percent) of the Group:

Profit before taxes	**-419**	**2,535**
Tax at the domestic tax rate	198	-594
Effect of tax rates of foreign subsidiaries	-6	-8
Taxes for prior years	-18	-21
Tax free income	190	262
Non-deductible expenses	-1,026	-541
Utilization of deferred tax assets from previous years	529	957
Reassessment of deferred tax assets	862	819
The deferred tax assets from tax losses		
Others	-58	-83
Income taxes in the consolidated income statement	**672**	**790**

Notes to the Consolidated Financial Statements

	2022	2021
11. EARNINGS PER SHARE		
Basic		
Basic earnings per share amounts are calculated by dividing net profit for the year attributable to ordinary equity holders of the parent by the weighted average number of ordinary shares outstanding during the year.		
Profit attributable to the equity holders of the parent, continuing operations (1,000 EUR)	253	3,324
Profit attributable to the equity holders of the parent, discontinued operations (1,000 EUR)	0	0
Profit attributable to the equity holders of the parent, continuing and discontinued operations (1,000 EUR)	253	3,324
Weighted average number of ordinary shares during the financial year (1,000 PCS)	35,702	35,700
Basic earnings per share, continuing operations, EUR	**0.007**	**0.093**
Basic earnings per share, discontinued operations, EUR	**0.000**	**0.000**
Basic earnings per share, continuing and discontinued operations, EUR	**0.007**	**0.093**
Diluted		
Diluted earnings per share are calculated by dividing the net profit attributable to ordinary equity holders of the parent by the weighted average number of ordinary shares outstanding during the year plus the weighted average number of ordinary shares that would be issued on the conversion of all the dilutive potential ordinary shares into ordinary shares. The Group had no share-based payment schemes which would have a diluting effect on the number of shares.		
Profit attributable to the equity holders of the parent, continuing operations (1,000 EUR)	253	3,324
Profit attributable to the equity holders of the parent, discontinued operations (1,000 EUR)	0	0
Profit attributable to the equity holders of the parent, continuing and discontinued operations (1,000 EUR)	253	3,324
Weighted average number of ordinary shares during the financial year (1,000 PCS)	35,702	35,700
Effect of dilution (1,000 PCS)		
Weighted average number of ordinary shares during the financial year (1,000 PCS)	35,702	35,700
Diluted earnings per share, continuing operations, EUR	**0.007**	**0.093**
Diluted earnings per share, discontinued operations, EUR	**0.000**	**0.000**
Diluted earnings per share, continuing and discontinued operations, EUR	**0.007**	**0.093**

12. PROPERTY, PLANT, AND EQUIPMENT

The Group has not revalued property, plant, and equipment, hence the Group has not recognized any impairment losses directly to equity or recorded any reversals of those.

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
Land and water		
Acquisition cost Jan. 1	1,091	1,091
Additions during the period		
Acquisition cost at the end of the period	**1,091**	**1,091**
Carrying amount at the end of the period	**1,091**	**1,091**
Buildings and constructures		
Acquisition cost Jan. 1	19,450	19,436
Translation differences	23	11
Additions during the period	697	2
Disposals during the period		
Acquisition of business unit		
Transfer to assets		
Acquisition cost at the end of the period	**20,170**	**19,450**
Accumulated depreciation Jan. 1	-5,840	-5,094
Translation differences	-23	-10
Depreciation for the period	-753	-735
Depreciations on disposals		
Carrying amount at the end of the period	**13,554**	**13,610**

No revaluations or capitalizations of interest costs have been done.

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
Machinery and equipment		
Acquisition cost Jan. 1	62,297	60,197
Translation differences	-8	-18
Additions during the period	2,010	2,117
Acquisition of business unit		
Disposals during the period	-11	
Transfer to assets		
Acquisition cost at the end of the period	**64,288**	**62,297**
Accumulated depreciation Jan. 1	-56,195	-52,908
Translation differences	8	16
Depreciation for the period	-3,170	-3,303
Depreciations on disposals		
Carrying amount at the end of the period	**4,931**	**6,102**
Other tangible assets		
Acquisition cost Jan. 1	88	88
Additions during the period		
Disposals during the period		
Acquisition cost at the end of the period	**88**	**88**
Translation differences		
Accumulated depreciation Jan. 1		
Depreciation for the period		
Carrying amount at the end of the period	**88**	**88**

Notes to the Consolidated Financial Statements

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
Property, plant, and equipment total		
Acquisition cost Jan. 1	82,925	80,812
Translation differences	15	-7
Additions during the period	2,707	2,120
Acquisition of business unit	0	0
Disposals during the period	-11	0
Transfer to assets	0	0
Acquisition cost at the end of the period	**85,637**	**82,925**
Accumulated depreciation Jan. 1	-62,035	-58,002
Translation differences	-15	6
Depreciation for the period	-3,923	-4,038
Depreciations on disposals	0	0
Carrying amount at the end of the period	**19,664**	**20,891**

Leases

The Group had the following amounts of property, plant and equipment acquired by finance leases:

Machinery and equipment		
Acquisition cost	11,883	10,971
Accumulated depreciation	-10,419	-9,356
Carrying amount at the end of the period	1,464	1,615
Buildings and constructures		
Acquisition cost	2,545	1,835
Accumulated depreciation	-1,586	-1,214
Carrying amount at the end of the period	959	621

Additions of property, plant, and equipment include assets acquired by leases of EUR 1.6 million in 1.1.–31.12.2022 (EUR 1.1 million in 2021).

13. INTANGIBLE ASSETS

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
Capitalized development expenses		
Acquisition cost Jan. 1	67,954	60,945
Additions during the period	6,647	7,009
Acquisition of business unit		
Acquisition cost at the end of the period	**74,601**	**67,954**
Accumulated depreciation Jan. 1	-19,887	-14,385
Depreciation for the period	-5,897	-5,503
Carrying amount at the end of the period	**48,817**	**48,067**
Intangible rights		
Acquisition cost Jan. 1	5,719	5,313
Additions during the period	313	406
Disposals during the period		
Acquisition of business unit		
Transfer to assets		
Acquisition cost at the end of the period	**6,032**	**5,719**
Accumulated depreciation Jan. 1	-4,686	-4,335
Depreciation for the period	-430	-351
Carrying amount at the end of the period	**915**	**1,032**
Customer relations and technology		
Acquisition cost Jan. 1	1,780	1,780
Acquisition of business unit		
Acquisition cost at the end of the period	**1,780**	**1,780**
Accumulated depreciation Jan. 1	-1,356	-1,122
Depreciation for the period	-173	-234
Carrying amount at the end of the period	**252**	**425**

Notes to the Consolidated Financial Statements

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
Other intangible assets		
Acquisition cost Jan. 1	4,876	4,855
Translation differences	6	8
Additions during the period		14
Transfer to assets		
Acquisition cost at the end of the period	**4,882**	**4,876**
Accumulated depreciation Jan. 1	-4,458	-4,098
Translation differences	-6	-8
Depreciation for the period	-289	-352
Carrying amount at the end of the period	**130**	**418**
Intangible assets total		
Acquisition cost Jan. 1	80,329	72,893
Translation differences	6	8
Additions during the period	6,960	7,429
Acquisition of business unit	0	0
Disposals during the period	0	0
Transfer to assets	0	0
Acquisition cost at the end of the period	**87,295**	**80,329**
Accumulated depreciation Jan. 1	-30,387	-23,940
Translation differences	-6	-8
Depreciation for the period	-6,788	-6,439
Carrying amount at the end of the period	**50,114**	**49,943**
Goodwill		
Acquisition cost Jan. 1	5,823	5,807
Translation differences	13	16
Additions during the period		
Disposals during the period		
Carrying amount at the end of the period	**5,836**	**5,823**

Impairment Test

Preparation of impairment analysis requires the use of numerous estimates. The valuation is inherently judgmental and highly susceptible to change from period to period because it requires management to make assumptions about future supply and demand related to its individual business units, future sales prices, and achievable cost levels.

The cash flow forecasts employed in impairment test calculations are based on the budgets for 2023 and the Long Range Plans (LRP) for 2024–2027 approved by management for the strategic period. Cash flows beyond a five-year period are calculated by using the terminal value method. Future cash flows are exposed to the risks that are discussed in the section "Risks and uncertainties" in the Report by the Board of Directors.

The used discount rate in impairment testing is the Weighted Average Cost of Capital (WACC) before tax is defined for Bittium. WACC defines average costs of equity and debt by noticing the risks belonging to each component. The components of WACC are risk-free interest rate, market risk premium, beta, cost of debt, corporate income tax rate, and target capital structure. WACC calculated according to these parameters amounted to 9.8% (9.8% in 2021). Valuation has applied the perpetual growth of 2%.

In 2022 business did not reach the forecasted cash flow. This was mainly because of increase in working capital and slower than expected growth and profitability in the business. The growth in business was still delayd due to component availability during the fiscal year. That results with lower expectations of future operating cash flows.

The impairment test is done when needed, but at least once a year. Impairment tests made in December 2022 did not indicate need for impairment bookings. Recoverable amounts exceed significantly the book value of goodwill and other assets. The terminal value represents 88% of business value. The growth in business was slower than expected due to component availability, which moves focus of forecasted net present value based cash flows from the near future to further in the future.

Sensitivity analysis was also carried out during the impairment test. Cash flow forecast was either decreased by 20% or the discount factor was increased by 5%. It was noticed that cash flows are relatively sensitive to increase in discount factor. However, there are no expectations for impairment losses in the future. However, based on sensitivity analysis management does not belive that possible changes to the major assumptions will not lead situation where accumulated cash amount would be below the book value.

Notes to the Consolidated Financial Statements

14. ACQUISITIONS

Acquisitions in 2022

In 2022 or in the comparative period 2021 the Group did not have acquisitions to be reported according to the IFRS standards.

15. SHARES IN ASSOCIATED COMPANIES

Bittium Group owns 25% of Coronaria Analyysipalvelut Oy shares at the end of 2022. Through this joint ownership, Bittium and Coronaria aim at gaining synergies from Bittium's device and system development and the interfaces formed by Coronaria's clinical medicine and services. Coronaria Analyysipalvelut Oy has been consolidated using the equity method using the information that was available for the Bittium financial statements. The domicile of the company is Oulu.

Bittium Group owns 25% of evismo AG shares at the end of 2022. evismo AG provides medical remote diagnostics services in Switzerland. evismo AG has been consolidated using the equity method using the information that was available for the Bittium financial statements. The domicile of the company is in Zurich.

1000 EUR	2022	2021
Shares in associated companies		
Coronaria Analyysipalvelut Oy	988	1,104
evismo AG	0	157
Other associated companies	22	22
Assets total	**1,010**	**1,283**
Coronaria Analyysipalvelut Oy		
Current assets	494	1,054
Non-current assets	1,725	1,523
Non-current liabilities	76	102
Turnover	4,192	5,563
Net profit	111	585
evismo AG		
Current assets	261	775
Non-current assets	61	72
Non-current liabilities	1,045	1,013
Turnover	700	361
Net profit	-650	-264
Shares in associated companies		
Acquisition cost Jan. 1	1,283	1,507
Translation differences	-10	-6
Additions during the period	28	144
Disposals during the period	-291	-363
Carrying amount at the end of the period	**1,010**	**1,283**

Notes to the Consolidated Financial Statements

16. OTHER FINANCIAL ASSETS

1000 EUR	2022	2021
At 1 January	112	112
Additions		
Disposals		
At the closing date	**112**	**112**

17. DEFERRED TAX LIABILITIES AND ASSETS

1000 EUR	Jan. 1, 2022	Recognized in the income statement	Acquisitions and disposals of subsidiaries	Dec. 31, 2022
Deferred tax assets				
Unutilized losses in taxation	526		t	526
Other items	6,219	671		6,890
Total	**6,745**	**671**	**0**	**7,416**

On December 31, 2022, the Group had 64.6 million euros in tax losses and non-depreciated depreciations of which it had not booked deferred tax receivables in the full amount due to the uncertainty of the future profits, their timing, taxation, or location. The amount of these non-booked deferred tax receivables is approximately 12.9 million euros. The aging of these tax losses begins in the year 2023.

1000 EUR	Jan. 1, 2022	Recognized in the income statement	Acquisitions and disposals of subsidiaries	Dec. 31, 2022
Deferred tax liabilities				
Customer and technology assets	208	-52	0	156
Total	**208**	**-52**	**0**	**156**

1000 EUR	Jan. 1, 2021	Recognized in the income statement	Acquisitions and disposals of subsidiaries	Dec. 31, 2021
Deferred tax assets				
Unutilized losses in taxation	526			526
Other items	5,435	784		6,219
Total	**5,961**	**784**	**0**	**6,745**

On December 31, 2021 the Group had 69.2 million euros tax losses and non-depreciated depreciations of which it had not booked deferred tax receivables in full amount due to the uncertainty of the future profits, their timing, taxation or location. The amount of these non booked deferred tax receivables is approximately 13.8 million euros. The aging of these tax losses begins from year 2022.

1000 EUR	Jan. 1, 2021	Recognized in the income statement	Acquisitions and disposals of subsidiaries	Dec. 31, 2021
Deferred tax liabilities				
Customer and technology assets	273	-64	0	208
Total	**273**	**-64**	**0**	**208**

Notes to the Consolidated Financial Statements

18. INVENTORIES

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
Raw materials and supplies	18,255	15,326
Work in progress	3,251	2,145
Finished products	2,690	1,133
Other inventories		233
Total	**24,196**	**18,837**

19. TRADE AND OTHER RECEIVABLES (CURRENT)

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
Non-current receivables	856	1,081
Non-current receivables total	**856**	**1,081**
Current receivables:		
Trade receivables	37,242	34,536
Receivables from construction contracts	1,382	1,421
Prepaid expenses and accrued income	1,953	2,272
Other receivables	858	1,167
Current receivables total	**41,435**	**39,396**

Receivables are valued at nominal value or probable current value, whichever is lower.

During the financial year group has booked impairment losses from accounts receivable EUR 0.0 million (EUR 0.6 million 2021).

Age distribution of accounts receivable		
Current	35,598	32,614
Aged Overdue Amounts		
0–3 months	1,594	1,770
4–6 months	49	107
7–12 months	2	44
> 12 months		0
Total	**37,242**	**34,536**

20. FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
Interest rate funds		
Balance sheet value on Jan. 1	5,732	5,689
Disposals		
Changes in fair value	-36	44
Balance sheet value at the end of the period	**5,696**	**5,732**
Financial assets at fair value through profit or loss total		
Balance sheet value on Jan. 1	5,732	5,689
Disposals		
Changes in fair value	-36	44
Balance sheet value at the end of the period	**5,696**	**5,732**

21. CASH AND SHORT-TERM DEPOSITS

Cash and short-term deposits	13,320	16,306
Total	**13,320**	**16,306**
Cash and cash equivalents at the consolidated cash flow statement consist of:		
Interest rate funds	5,696	5,732
Cash and short-term deposits	13,320	16,306
Total	**19,016**	**22,039**

Fair value of cash and cash equivalents does not significantly differ from the carrying amount.

Notes to the Consolidated Financial Statements

22. ISSUED CAPITAL AND RESERVES

	Shares 1000 PCS	Share premium 1000 EUR	Premium fund 1000 EUR	Invested non-restricted equity fund 1000 EUR	Total 1000 EUR
On December 31, 2021	35,702	12,941	0	25,953	38,894
On December 31, 2022	35,702	12,941	0	25,953	38,894

Shares and the Share Capital
The shares of Bittium Corporation are listed on the NASDAQ OMX Helsinki Ltd. The Corporation has one series of shares. All the shares entitle their holders to dividends of equal value. Each share has one vote. The share does not have a nominal value. The company's shares have been entered into the Finnish Central Securities Depository Ltd's book-entry securities system.

At the end of the financial period, the fully paid share capital of the company entered into the Finnish Trade Register was EUR 12,941,269.00 and the total number of the shares was 35,702,264. The accounting per value of the company's share is EUR 0.10. The company is not in the possession of its own shares.

Translation Differences
The translation reserve comprises all foreign exhange differences arising from the transition of the financial statements of foreign subsidiaries.

Dividends
The Board of Directors proposes that the Annual General Meeting resolve to pay EUR 0,05 per share as dividend based on the adopted balance sheet for the financial period of January 1, 2022–December 31, 2022.

23. SHARE-BASED PAYMENT PLANS

Share-based Remuneration of the Board of Directors

During the financial year 2022, the group has paid of total part remuneration of the board of directors of Bittium Plc by the shares of Bittium. The shares were acquired from the stock exchange. The main terms of the remuneration arrangement are presented in the table below.

Share-based Remuneration of the Board of Directors paid in financial year 2022

Form of the reward	Shares
Grant date	May 5, 2022
Total amount of executed shares	12,247
Share price at the grant date, EUR	5.07
Total expenses of the reward, EUR million	0.062
Vesting conditions	Ownership of the shares was transferred to the recipients at once but the recipients have agreed on the lock-up undertaking until the membership in the board has ceased.
Execution	In shares

Share-based Remuneration of the Management

During the financial year 2022, the group has paid share-based incentive scheme remuneration for the Management of Bittium Plc by the shares of Bittium. Half of the remuneration was paid in cash and half by the new shares issued in directed share issue without consideration. The main terms of the remuneration arrangement are presented in the table below.

Share-based Remuneration of the Management paid in financial year 2022

Form of the reward	Shares
Grant date	March 25, 2022
Total amount of executed shares	13,467
Share price at the grant date, EUR	5.44
Total expenses of the reward, EUR million	0.07
Vesting conditions	Ownership of the shares was transferred to the recipients at once but the recipients have agreed on the lock-up undertaking for two years.
Execution	In shares

Share-based Remuneration of the Management

The Management of Bittium Corporation has a Share-Based Incentive Scheme. The Performance Share Plan (PSP) consists of three annually commencing three-year performance share plans, PSP 2020–2022, PSP 2021–2023 and PSP 2022–2024, each with a one-year performance period, which is followed by the payment of the share reward and a two-year transfer restriction period. The commencement of the following two plans, PSP 2021–2023 and PSP 2022–2024, is, however, subject to a separate Board decision. The performance measures based on which the potential share reward under PSP 2020–2022 will be paid are the revenue growth and cash flow before financial items of Bittium. A precondition for the payment of the share reward is, in addition, that the employment relationship of the participant with Bittium continues at the time the reward is paid. The potential reward will be paid in shares of Bittium.

Form of the reward	Shares
Grant date	February 10, 2022
Total amount of the shares at the most	122,100
Share price at the grant date, EUR	5.2
Total expenses of the reward at the most, EUR million	0.7
Execution	In shares

Notes to the Consolidated Financial Statements

Share-based Remuneration of the Board of Directors

During the financial year 2021, the group has paid of total part remuneration of the board of directors of Bittium Plc by the shares of Bittium. The shares were acquired from the stock exchange. The main terms of the remuneration arrangement are presented in the table below.

Share-based Remuneration of the Board of Directors paid in financial year 2021

Form of the reward	Shares
Grant date	May 14, 2021
Total amount of executed shares	8,665
Share price at the grant date, EUR	6.574
Total expenses of the reward, EUR million	0.057
Vesting conditions	Ownership of the shares was transferred to the recipients at once but the recipients have agreed on the lock-up undertaking until the membership in the board has ceased.
Execution	In shares

Share-based Remuneration of the Management

During the financial year 2021, the group has paid share-based incentive scheme remuneration for the Management of Bittium Plc by the shares of Bittium. Half of the remuneration was paid in cash and half by the new shares issued in directed share issue without consideration. The main terms of the remuneration arrangement are presented in the table below.

Share-based Remuneration of the Management paid in financial year 2021

Form of the reward	Shares
Grant date	March 24, 2021
Total amount of shares at the most	9,098
Share price at the grant date, EUR	6.40
Total expenses of the reward at the most, EUR million	0.1
Vesting conditions	Ownership of the shares was transferred to the recipients at once but the recipients have agreed on the lock-up undertaking for two years.
Execution	In shares

Share-based Remuneration of the Management

The Management of Bittium Corporation has a Share-Based Incentive Scheme. The Performance Share Plan (PSP) consists of three annually commencing three-year performance share plans, PSP 2020–2022, PSP 2021–2023, and PSP 2022–2024, each with a one-year performance period, which is followed by the payment of the share reward and a two-year transfer restriction period. The commencement of the following two plans, PSP 2021–2023 and PSP 2022–2024, is however, subject to a separate Board decision. The performance measures based on which the potential share reward under PSP 2020–2022 will be paid are the revenue growth and cash flow before the financial items of Bittium. A precondition for the payment of the share reward is, in addition, that the employment relationship of the participant with Bittium continues at the time the reward is paid. The potential reward will be paid in shares of Bittium.

Form of the reward	Shares
Grant date	February 10, 2021
Total amount of the shares at the most	111,900
Share price at the grant date, EUR	6.87
Total expenses of the reward at the most, EUR million	0.8
Execution	In shares

24. PROVISIONS

1000 EUR	Guarantee provisions	Expected credit losses	Others	Total
December 31, 2021	3,205	319	0	3,523
Increase in provisions	1,796	46	16	1,859
Utilized provisions	-583			-583
Reversal of untilized provisions	-138			-138
December 31, 2022	**4,280**	**365**	**16**	**4,661**
Current provisions	4,280	365	16	4,661
Total	**4,280**	**365**	**16**	**4,661**

25. FINANCIAL LIABILITIES

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
Non-current loans		
Non-current loans from financial institutions	20,000	20,000
Finance lease liabilities	1,335	1,111
Total	**21,335**	**21,111**
Current loans		
Lease liabilities	1,110	1,152
Total	**1,110**	**1,152**
Repayment schedule of long-term loans:		
2023	1,110	640
2024	20,703	20,263
2025	350	122
2026	149	7
Later	134	78
Total	**22,446**	**21,111**

Notes to the Consolidated Financial Statements

The interest-bearing non-current loans are distributed by currency as follows:

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
EUR	21,335	21,111
Total	**21,335**	**21,111**

The interest-bearing current loans are distributed by currency as follows:

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
EUR	1,110	1,152
Total	**1,110**	**1,152**

Maturities of the finance lease liabilities:

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
Lease liabilities - Minimum lease payments		
Within one year	1,159	1,190
After one year but no more than five years	1,306	1,060
After five years	96	100
Lease liabilities - Present value of minimum lease payments	2,446	2,263
Within one year	1,110	1,152
After one year but no more than five years	1,260	1,033
After five years	76	78
Future finance charges	115	86
Total amount of finance lease liabilities	2,561	2,350

26. CHANGES IN LIABILITIES ARISING FROM FINANCING ACTIVITIES

1000 EUR	Jan. 1, 2022	Cash flows	New leases	Dec 31, 2022
Lease and financing contracts	22,263	-1,425	1,607	22,446
Total	**22,263**	**-1,425**	**1,607**	**22,446**

27. TRADE AND OTHER PAYABLES

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
Non-current liabilities		
Other non-current liabilities, non-interest bearing		
Non-current advances received		
Other non-current liabilities, non-interest bearing	192	200
Total	**192**	**200**
Current liabilities		
Trade and other payables		
Trade liabilities	10,251	3,997
Accrued liabilities, deferred income	9,394	10,396
Other liabilities	6,782	8,746
Total	**26,427**	**23,140**

Material of accrued expenses and deferred income consists of personnel expenses and other accruals.

The fair value of the other liabilities than derivatives doesn't significantly differ from the initial carrying value, because the impact on discounting is not significant when taking into account the maturities of the loans.

Financial liabilities at fair value through profit or loss		
Liabilities based on derivates		
Balance sheet value on Jan. 1		
Changes in fair value		
Balance sheet value at the end of the period	**0**	**0**

Notes to the Consolidated Financial Statements

28. FINANCIAL RISK MANAGEMENT

Under its normal business activities, Bittium Corporation is exposed to several financial risks. The primary financial risks are foreign exchange rate risk, interest rate risk, investment risk, and default risk. The goal of the Group's financial risk management function is to reduce the adverse effects of price fluctuations and other uncertainties on earnings, balance sheet, and cash flows as well as to ensure sufficient liquidity. In its risk management, the Group uses financial instruments such as forward exchange agreements and interest rate swaps. External professional portfolio managers are employed for investing activities.

The Group's general risk management principles are approved by the Board of Directors. The responsibility for their implementation lies with the group finance department together with operational units. The group finance department identifies and assesses risks and obtains relevant financial instruments for hedging them in close co-operation with the operative units. Management evaluates risk concentrations from the viewpoint of business activities, taking into consideration shared factors between underlying variables such as those arising from changes in economic conditions or other variables. Operations and funding programs executed in the financial markets are mainly concentrated into the parent company. Subsidiaries are mainly funded through intra-company loans and group account overdraft credit limits.

The Group's financial risks are divided into market, default and liquidity risk.

Market risks

Market risks are caused by changes in foreign exchange rates, interest rates and the price of securities. Fluctuations in these may have an impact on the Group's income statement, cash flow or balance sheet.

Foreign exchange rate risk

The Group operates globally and is exposed to transaction risk from foreign exchange positions as well as to risks due to the translation of investments in different currencies to the functional currency of the parent company. The most relevant currencies for the Group are the Euro and the US dollar. Foreign exchange rate risk is caused by commercial activities, monetary items on the balance sheet and net investments in foreign subsidiaries. A business unit's functional currency or generally used currencies (EUR, USD) are used as invoicing currency. Additional information on functional currency and foreign currency conversion is available in the accounting principles section of the consolidated financial statements.

The Group follows a currency strategy that aims at securing the margin of business activities in changing market conditions by minimizing the effect of fluctuations in foreign exchange rates. According to the principles of the currency strategy, surely considered and the most probable net cash flow in a particular currency is hedged as a net position. The cash flow is defined based on the net position of the trade receivables, trade payables, order intake, and forecasted net currency cash flow. According to the currency strategy, the degree of hedging can vary from approximately 50% to 100% of the forecasted net position when the net position exceeds EUR 1 million. The Group could also apply hedge accounting as defined in the IFRS 9 standard. Hedge accounting was not applied during 2022. At the end of the financial period, the counter value of the hedged net position was EUR 1.4 million. During the financial year, the amount of the hedged position has been changing between EUR 1.4–5.0 million.

The Group has hedged the transaction risk related to its income statement, and the translation risk related to equity on the balance sheet or economic risk has not been hedged. Foreign currencies denominated equities of foreign subsidiaries on December 31, 2022, was EUR 4.5 million (EUR 3.6 million in 2021) from which dollar-denominated equities of foreign subsidiaries were EUR 4.2 million (EUR 3.4 million in 2021).

On the closing date, the Group had the following foreign exchange derivative contract nominal amounts outstanding (the nominal amounts do not represent the amounts exchanged by the parties):

1000 EUR	2022	2021
Forward contracts		
Market value	**33**	**21**
Nominal value	**1,400**	**5,000**

Dollar-denominated assets and liabilities translated to euros using the closing date's value:

1000 EUR	2022	2021
Long-term assets	0	0
Long-term liabilities	0	0
Current assets	8,049	8,796
Current liabilities	3,825	5,439

The table below describes the 10% appreciation or depreciation of the Euro against the US dollar, with other variables remaining constant. The sensitivity analysis is based on foreign currency-denominated assets and liabilities as of the closing date. The change in dollar-denominated trade receivables and debt would primarily have been due to fluctuations in the foreign exchange rate.

	Changes in income statement before tax		Changes in equity before tax	
1000 EUR	2022	2021	2022	2021
EUR appreciates	-400	-300	-400	-300
EUR depreciates	500	400	500	400

Notes to the Consolidated Financial Statements

Interest Rate Risk

Part of the Group's debt is tied to fixed interest rates.
At the closing date, the Group had the following fixed interest rate debts outstanding:

1000 EUR	2022	2021
Fixed interest rate debts	2,446	2,263

The table below describes the interest rate risk of debts should there have been a ±1% change in interest rates of short-term reference interest rate debts, with other variables remaining constant. The figures presented indicate the change in yearly interest expense calculated using the average amount of debt during the financial period.

	Changes in income statement before tax		Changes in equity before tax	
1000 EUR	2022	2021	2022	2021
Loan stock January, 1	22,300	22,500		
Loan stock December, 31	22,400	22,300		
Average loan stock	22,400	22,400		
Change in interest	+/- 200	+/- 200	+/- 200	+/- 200

Market Risk of Investment Activities

The Group's interest investments result in interest rate exposure, but their effect is not considered significant. The Group's revenue and operative cash flows are mainly independent of market rate fluctuations.

The Group invests in low-risk interest rate funds and therefore it has not been exposed to the security price risk of fluctuations in the stock markets. According to the Group's principles, investments related to cash management are made in liquid and low-risk money markets or bond instruments and thus have not been hedged using derivatives.

The table below describes the distribution of investments in securities at the closing date.

	2022	2021
Stock shares	0.0%	0.0%
Bonds	76.8%	46.1%
Money market investments	23.2%	53.9%
Total	**100.0%**	**100.0%**

The combined value of the above instruments during the financial period has ranged from approximately EUR 5.6 to EUR 5.7 million. At the closing date their value was approximately EUR 5.7 million. This risk concentration has been managed by investing in well-spread and low-risk money market funds.

The table below describes the price risk of the investments if they had exhibited a ±1% change in a market rate of interest, other variables remaining constant. Financial assets that are recognized at market value in the income statement affect net income. Changes in the value of for-sale financial assets affect equity. In the calculations it is presumed that the Group's investments change with the interest rate level in question. The sensitivity analysis describes the total market risk of investment activity because all investments are in the interest rate instruments.

	Changes in income statement before tax		Changes in equity before tax	
1000 EUR	**2022**	**2021**	**2022**	**2021**
Interest investments	+/- 0	+/- 0	+/- 0	+/- 0

Default risk

Group's credit risks are mainly related to accounts receivable, cash, financial investments and derivatives used in hedging. In it's deposit, financial investment and hedging activities Bittium operates only with well-known partners who have good credit rating.

About 85% of the Group's trade receivables are from ten customers. The other trade receivables are distributed among a wide customer base and across several geographical areas. Credit risk is mitigated for example by documentary credits or bank guarantees when needed. Default risk concentration is mainly assessed as a single customer's share of total trade receivables but also according to the receivable's date of maturity.

During the past financial year the amount of recognized credit losses was approximately EUR 0.0 million (EUR 0.6 million in 2021). The amount of loans granted to affiliated companies were EUR 0.1 million at the end of 2022 (EUR 0.1 million in 2021). Group did not have capital loans granted outside of the Group at the end of 2022 (EUR 0.0 million in 2021).

The amount of the Group's counterparty default risk is consistent with the book value of financial assets at the closing date. For the maturity distribution of trade receivables, see note 19.

Liquidity risk

The Group and business segments strive to continuously evaluate and monitor the amount of liquid funds needed for business operations and loan repayments The Group strives to guarantee the availability and flexibility of financing by its strong financial position and liquid investments. Bittium has EUR 20.0 million senior loan and EUR 10.0 million committed overdraft credit facility agreement with Nordea Bank Finland Plc. Maturity date for the senior loan is May 24, 2024 and the credit limit agreement is valid until May 24, 2024. Bittium has EUR 10.0 million committed overdraft credit facility agreement with OP Corporate Bank Plc valid until September 30, 2025. These agreements include customary covenants related to, among other things, equity ratio, interest bearing debt to EBITDA, and transferring property and pledging. These credit facilities were in use EUR 0.0 million at the end of the reporting period. For the maturity distribution of the Group's debt, see note 25.

Capital structure management

The Group strives to optimize its capital structure and thus support business activities by ensuring normal operating conditions under all circumstances. An optimal capital structure also ensures that the cost of capital is minimized.

The capital structure is affected by dividend policy and share issuance. The Group can alter and adjust dividends paid to shareholders as well as share repurchases. The Group can also alter and adjust the amount of shares issued, or make decisions on the sale of assets.

The management has continuously monitored the development of the Group's net gearing and solvency ratio. The Group's interest-bearing net debt at the end of 2022 was EUR 3.4 million (EUR 0.2 million in 2021) and net gearing was 3.0% (0.2% in 2021). The Group's solvency ratio at the end of 2022 was 69.7% (72.4% in 2021).

Notes to the Consolidated Financial Statements

Fair Values of Financial Assets and Liabilities

This section presents the Group's fair valuing principles for all financial instruments. The table below presents book values for each item in detail. Their fair values are not considered to materially differ from the book values presented in the consolidated balance sheets.

1000 EUR	Note	Book value 2022	Fair value 2022	Book value 2021	Fair value 2021
Financial assets					
Other financial assets	16	112	112	112	112
Non-Current receivables	19	856	856	1,081	1,081
Trade receivables	19	37,242	37,242	34,536	34,536
Financial assets at fair value through profit or loss	20	5,696	5,696	5,732	5,732
Cash and cash equivalents	21	13,320	13,320	16,306	16,306
Currency forwards	20	33	33	21	21
Financial liabilities					
Bank loans	25	20,000	20,000	20,000	20,000
Trade payables and advances received	26	13,910	13,910	8,798	8,798
Currency forwards	27	0	0	0	0

Investments in Shares and Funds and Other Investments

For-sale financial assets consist mainly of money market investments that fair values are based on the quotes of the closing day (IFRS 13 fair value hierarchy level 1; quoted prices (unadjusted) in active markets for identical assets or liabilities).

Derivatives

The fair values of forward contracts are defined based on publicly quoted currency and interest rate information and using commonly accepted valuation methods (IFRS 13 fair value hierarchy level 2; instruments whose fair value is observable either directly (i.e. as prices) or indirectly (i.e. derived from prices)). These calculations have been carried out by an outside professional party.

Bank Loans

Book values are considered to closely approximate fair values.

Trade Receivables and Other Receivables

The original book value of receivables is considered to equal their fair values, since the effect of discounting is non-significant considering the maturities of the receivables.

Trade Payables and Other Debts

The original book value of payables and other debts is considered to equal their fair values, since the effect of discounting is non-significant considering the maturities of the receivables.

29. ADJUSTMENTS TO NET CASH FROM OPERATING ACTIVITIES

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
Business transactions without payments		
Depreciations	10,699	10,452
Share of profits in associated companies	185	90
Other adjustments	2,058	1,476
Total	**12,941**	**12,018**

30. OPERATING LEASE AGREEMENTS

The Group as Lessee
The total of future minimum lease payments under non-cancellable operating leases for each of the following periods:

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
Not later than one year	63	34
Later than one year and not later than five years		
After five years		

The Group owns its facilities in Oulu and Kuopio. The facilities in other locations are rented. In average the maturities of the lease agreements are from 1 month to 5 years and normally they include an option to extend the rental period from originally agreed end date. IFRS 16 Leases standard has come into force on 1st of January 2019. According to the standard in principle all lease contracts of the Group are recognized as assets and liabilities in Group's Balance Sheet.

Notes to the Consolidated Financial Statements

31. SECURITIES AND CONTINGENT LIABILITIES

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
Against own liabilities		
Floating charges		
Guarantee limits	2,992	3,032
Other contractual liabilities		
Falling due in the next year	2,504	1,427
Falling due after one year	708	1,368
Mortgages are pledged for liabilities totaled		
Other liabilities (guarantees issued)		
Material purchase commitments	13,912	18,240

32. RELATED PARTY DISCLOSURES

The Group has the following structure:	Country of incorporation	Owned by Parent %	Owned by Group %
Parent			
Bittium Oyj	Finland		
Subsidiaries			
Bittium Technologies Oy	Finland	100.00	100.00
Bittium Wireless Oy	Finland	0.00	100.00
Bittium Safemove Oy	Finland	0.00	100.00
Bittium Biosignals Oy	Finland	0.00	100.00
Bittium Medanalytics Oy	Finland	0.00	100.00
Kiinteistöosakeyhtiö Oulun Ritaharjuntie 1	Finland	0.00	100.00
Bittium Germany GmbH	Germany	0.00	100.00
Bittium Mexico S.A. de C.V.	Mexico	0.00	100.00
Bittium USA, Inc.	USA	0.00	100.00
Bittium Singapore Pte. Ltd.	Singapore	0.00	100.00

Information on the associated companies is presented in Note 15.

Related party transactions and balances:

1000 EUR		2022	2021
Associated companies			
	Net sales	817	1,121
	Receivables	1,057	1,483
	Debts	204	250

Related party transactions have occured based on market terms.

1000 EUR	2022	2021
Employee benefits for key management		
Salaries and remuneration		
Managing director of the parent		
Hannu Huttunen 1.1.–31.12.2021, 1.1.–31.12.2022	298	280
Total	**298**	**280**
Remuneration of the members of the board of the parent,		
the financial committee and the managing directors of the business segments		
Erkki Veikkolainen 1.1.–31.12.2021, 1.1.–31.12.2022	32	30
Riitta Tiuraniemi 1.1.–31.12.2021, 1.1.–31.12.2022	22	21
Pekka Kemppainen 1.1.–31.12.2021, 1.1.–31.12.2022	19	17
Petri Toljamo 14.4.–31.12.2021, 1.1.–31.12.2022	21	14
Veli-Pekka Paloranta 1.1.–31.12.2021, 1.1.–31.12.2022	20	20
Juha Putkiranta 1.1.–14.04.2021		5
Seppo Mäkinen 1.1.–14.04.2021		5
Total	**114**	**112**
Share-based incentives		
Board of Directors	62	174
Management	142	117
Total	**204**	**291**
Except for the Remuneration of the Management and the Members of the Board Bittium has not had significant business transactions with its Board, Managing Director, or Members of the Group Executive Board, including the companies that they have control or significant influence in. There have not been any business transactions or open balances between the related parties.		
Members of the group executive board	**1,008**	**1,044**

Loans and guarantees to related party

There are no loans or guarantees granted between the related parties.

Notes to the Consolidated Financial Statements

33. KEY RATIOS

	IFRS 2022	IFRS 2021	IFRS 2020	IFRS 2019	IFRS 2018
INCOME STATEMENT, MEUR					
Net sales, MEUR	82.5	86.9	78.4	75.2	62.8
Net sales change, %	-5.1	10.8	4.2	19.7	21.7
Operating profit/loss, MEUR	0.3	3.2	2.1	6.3	2.8
% of net sales	0.4	3.7	2.7	8.4	4.5
Profit/loss for continuing operations before taxes, MEUR	-0.4	2.5	1.6	5.9	2.7
% of net sales	-0.5	2.9	2.1	7.9	4.3
Profit for the year from continuing operations, MEUR	0.3	3.3	2.2	7.6	4.0
% of net sales	0.0	3.8	2.8	10.2	6.4
Profit after tax for the year from discontinued operations, MEUR					
% of net sales	0.0	0.0	0.0	0.0	0.0
Profit for the year attributable to equity holders of the parent, MEUR	0.3	3.3	2.2	7.6	4.0
% of net sales	0.0	3.8	2.8	10.2	6.4
BALANCE SHEET, MEUR					
Non-current assets	85.0	85.9	86.4	80.5	65.9
Inventories	24.2	18.8	20.9	18.2	14.6
Current assets	60.5	61.4	50.7	55.6	51.9
Shareholders' equity	115.8	116.8	114.2	112.3	110.0
Non-current liabilities	21.7	21.5	21.9	22.1	1.9
Current liabilities	32.2	27.8	21.8	19.9	20.5
Balance sheet total	169.7	166.1	158.0	154.2	132.4

	IFRS 2022	IFRS 2021	IFRS 2020	IFRS 2019	IFRS 2018
PROFITABILITY AND OTHER KEY FIGURES					
Return on equity % (ROE)	0.2	2.9	1.9	6.9	3.6
Return on investment % (ROI)	0.3	2.3	1.6	5.0	3.7
Interest-bearing net liabilities, (MEUR)	3.4	0.2	-2.1	-12.6	-29.4
Net gearing, %	3.0	0.2	-1.9	-11.2	-26.7
Equity ratio, %	69.7	72.4	73.1	73.4	84.7
Gross investments, (MEUR)	9.5	9.6	17.4	21.3	21.2
Gross investments, % of net sales	11.6	11.1	22.2	28.3	33.8
R&D costs, (MEUR)	22.3	19.8	22.8	25.1	21.6
R&D costs, % of net sales	27.0	22.8	29.1	33.4	34.4
Average personnel during the period, parent and subsidiaries	641	664	673	665	660
STOCK-RELATED FINANCIAL RATIOS					
Earnings per share from continuing operations, EUR					
Basic earnings per share	0.007	0.093	0.061	0.214	0.113
Diluted earnings per share	0.007	0.093	0.061	0.214	0.113
Earnings per share from discontinued operations, EUR					
Basic earnings per share					
Diluted earnings per share					
Earnings per share from continuing and discontinued operations, EUR					
Basic earnings per share	0.007	0.093	0.061	0.214	0.113
Diluted earnings per share	0.007	0.093	0.061	0.214	0.113
Equity per share, EUR	3.24	3.27	3.20	3.15	3.08
Dividend per share EUR *)	0.05	0.04	0.03		0.15
Dividend per earnings, %	704.5	43.0	50.9		133.0
P/E ratio	560.1	56.9	94.8	30.4	67.5
Effective dividend yield, %	1.3	0.8	0.5		2.0
Market values of shares (EUR)					
Highest	6.08	7.89	7.67	8.03	8.10
Lowest	3.47	4.93	3.40	5.91	4.71
Average	4.71	6.18	5.74	6.70	5.98
At the end of the period	3.98	5.30	5.79	6.50	7.61
Market value of the stock, (MEUR)	141.9	189.2	206.7	232.0	271.6
Trading value of shares					
MEUR	44.0	83.2	117.9	51.5	75.4
1000 PCS	9,346	13,464	20,557	7,689	12,608
Related to the average number of shares %	26.2	37.7	57.6	21.5	35.3
Adjusted number of the shares at the end of the period (1000 PCS)	35,702	35,702	35,693	35,693	35,693
Adjusted number of the shares average for the period (1000 PCS)	35,702	35,700	35,693	35,693	35,693
Adjusted number of the shares average for the period diluted with stock options (1000 PCS)	35,702	35,700	35,693	35,693	35,693

*) Proposal of the Board of Directors for 2022.

Notes to the Consolidated Financial Statements

CALCULATION OF KEY RATIOS

Return on equity % (ROE)	=	$\frac{\text{Profit for the year x 100}}{\text{Total equity (average for the accounting period)}}$
Return on investment % (ROI)	=	$\frac{\text{Profit before tax + interest and other financial expenses x 100}}{\text{Balance sheet total - interest-free liabilities (average for the accounting period)}}$
Net gearing, %	=	$\frac{\text{Interest-bearing liabilities - cash and cash equivalents x 100}}{\text{Total equity}}$
Equity ratio, %	=	$\frac{\text{Total equity x 100}}{\text{Balance sheet total - advances received}}$
Earnings per share	=	$\frac{\text{Profit attributable to equity holders of the parent}}{\text{Share issue adjusted number of the shares average for the period}}$
Equity per share	=	$\frac{\text{Equity attributable to equity holders of the parent}}{\text{Share issue adjusted number of the shares at the end of the period}}$
Dividend per share	=	$\frac{\text{Dividend for the period (Board's proposal) per share}}{\text{Adjustment coefficient of post-fiscal share issues}}$
Dividend per earnings, %	=	$\frac{\text{Dividend per share x 100}}{\text{Earnings per share}}$
P/E ratio	=	$\frac{\text{Share issue adjusted share price at the end of the period}}{\text{Earnings per share}}$
Effective dividend yield, %	=	$\frac{\text{Dividend per share x 100}}{\text{Share issue adjusted share price at the end of the period}}$

34. SHAREHOLDINGS AND SHARES

Breakdown of Shares by Shareholding, December 31, 2022

Number of shares	Number of shareholders	Percentage of shareholders	Number of shares	Percentage of shares and votes
1 - 100	10,034	45.7	449,970	1.3
101 - 500	6,785	30.9	1,792,433	5.0
501 - 1000	2,166	9.9	1,699,280	4.8
1001 - 5000	2,246	10.2	5,038,363	14.1
5001 - 10000	374	1.7	2,736,105	7.7
10001 - 50000	301	1.4	5,880,958	16.5
50001 - 100000	33	0.2	2,245,599	6.3
100001 - 500000	24	0.1	5,770,325	16.2
500001 - 999999999999	9	0.0	10,089,231	28.3
Total	**21,972**	**100.0**	**35,702,264**	**100.0**
Nominee-registered	9		1,389,073	3.9

Breakdown of Shareholders by Shareholder Type, December 31, 2022

Shareholders by shareholder type	Number of shareholders	Percentage of shareholders	Number of shares	Percentage of shares and votes
Non-financial corporations	521	2.4	3,999,121	11.2
Financial sector and insurance corporations	20	0.1	1,970,791	5.5
General government	5	0.0	3,162,817	8.9
Non-profit institutions	23	0.1	102,144	0.3
Households	21,316	97.0	25,012,938	70.1
Foreign owners	78	0.4	65,380	0.2
Nominee-registered shares	9	0.0	1,389,073	3.9
Total	**21,972**	**100.0**	**35,702,264**	**100.0**

Notes to the Consolidated Financial Statements

Major Shareholders, December 31, 2022

	Number of shares	Percentage of shares and votes
Number of shares total	**35,702,264**	**100.0**
1. Veikkolainen Erkki, Chairman of the Board	1,817,665	5.1
2. Ponato Oy	1,501,300	4.2
3. Hulkko Juha	1,419,370	4.0
4. Varma Mutual Pension Insurance Company	1,365,934	3.8
5. Ilmarinen Mutual Pension Insurance Company	1,296,529	3.6
6. Skandinaviska Enskilda Banken AB	740,314	2.1
7. Special Investment Fund Aktia Mikro Markka	700,000	2.0
8. Hildén Kai	658,000	1.8
9. Citibank Europe Plc	590,119	1.7
10. Elo Mutual Pension Insurance Company	500,000	1.4
Total	**10,589,231**	**29.7**
Others (incl. nominee-registered shares)	25,113,033	70.3
The Board and CEO		
Veikkolainen Erkki, Chairman of the Board	1,817,665	5.1
Kemppainen Pekka, Member of the Board	5,785	0.0
Paloranta Veli-Pekka, Member of the Board	6,021	0.0
Tiuraniemi Riitta, Member of the Board	16,751	0.0
Toljamo Petri, Member of the Board	23,635	0.1
Huttunen Hannu, CEO	21,369	0.1
	1,891,226	**5.3**

Income Statement, Parent

1000 EUR	Notes	2022	2021
NET SALES	1, 2	**790**	**808**
Other operating income	3	0	0
Personnel expenses	4	-1,154	-1,177
Depreciation and reduction in value	5	- 14	-14
Other operating expenses	6	- 872	-823
OPERATING PROFIT		**-1,250**	**-1,205**
Financial income and expenses	7	1,590	1,335
PROFIT (LOSS) BEFORE APPROPRIATIONS AND TAXES		**340**	**131**
Appropriations	8	**1,500**	**0**
PROFIT (LOSS) BEFORE APPROPRIATIONS AND TAXES		**1,840**	**131**
Taxes	9	**0**	**-3**
NET PROFIT FOR THE FINANCIAL YEAR		**1,840**	**127**

Balance Sheet, Parent

1000 EUR	Notes	Dec. 31, 2022	Dec. 31, 2021
ASSETS			
Non-current assets			
Intangible assets	10	77	87
Tangible assets	11	71	71
Investments	12	39,750	39,750
Non-current assets total		39,898	39,908
Current assets			
Receivables			
Current receivables	13	100,152	98,508
Receivables total		100,152	98,508
Financing securities	14	5,696	5,732
Cash and bank deposits		8,845	9,957
Current assets total		114,693	114,198
TOTAL ASSETS		**154,591**	**154,105**
SHAREHOLDERS’ EQUITY AND LIABILITIES			
Shareholders’ equity	15		
Share capital		12,941	12,941
Invested non-restricted equity fund		25,953	25,953
Retained earnings		90,472	91,916
Net profit/loss for the year		1,840	127
Shareholders' equity total		131,206	130,938
Provisions			
Provisions, non-current			
Provisions, current			
Liabilities	16		
Non-current liabilities		20,000	20,000
Current liabilities		3,385	3,167
Liabilities total		23,385	23,167
SHAREHOLDERS' EQUITY AND LIABILITIES TOTAL		**154,591**	**154,105**

Cash Flow, Parent

1000 EUR	2022	2021
CASH FLOW FROM OPERATING ACTIVITIES		
Profit (loss) before taxes +/-	1,840	131
Adjustments		
Depreciation according to plan +	14	14
Effects of non-cash business activities	-1,500	0
Financial income and expenses +/-	-1,590	-1,335
Cash flow before change in net working capital	-1,236	-1,191
Change in net working capital		
Change in interest-free short-term receivables	8	40
Change in interest-free short-term payables	169	-68
Cash flow before financing activities	-1,058	-1,219
Interest paid -	-881	-773
Dividends received +	0	0
Interest received +	2,471	2,105
Net cash from operating activities	**531**	**113**
CASH FLOW FROM INVESTING ACTIVITIES		
Purchase of tangible and intangible assets -	-4	-8
Net cash used in investing activities	**-4**	**-8**
CASH FLOW FROM FINANCIAL ACTIVITIES		
Change in interest-free short-term financial receivables in Group	-152	-7,610
Change in interest-free short-term financial payables in Group	48	372
Received Group contributions	0	2,000
Dividend paid and capital repayment	-1,428	-1,110
Purchases of own shares	-144	0
Net cash used in financial activities	**-1,676**	**-6,348**
NET CHANGE IN CASH AND CASH EQUIVALENTS	**-6,243**	**-6,243**
Cash and cash equivalents at beginning of the period	15,690	21,932
Cash and cash equivalents at end of the period	14,541	15,690
Change in cash and cash equivalents in the balance sheet	-1,149	-6,243

Cash and cash equivalents include liquid and low risk financing securities.

Accounting Principles for the Preparation of Financial Statements, Parent Company

The financial statements have been prepared in accordance with the Finnish Accounting Act.

Valuation Principles

Valuation of Non-current Assets
Non-current assets are capitalized in the balance sheet at the original acquisition cost deducted by accumulated depreciation. Depreciation according to the plan is calculated either using the straight-line method or the reducing balance method, taking into consideration of the useful life of assets. The depreciation periods are:

Intangible assets	3–10 years
Tangible assets	3–5 years

Valuation of Financial Securities
Financial securities are valued at fair value. The fair value of forward exchange are defined based on forward exchange prices on balance sheet date and option contracts are defined based on market prices on balance sheet date.

Pensions
The Company has organized pension coverage for its personnel through independent pension insurance companies. The pension insurance expenditures are included into personnel expenses.

Leasing Agreements
Leasing agreements and fixed-term rental agreements are reported as contingent liabilities off the balance sheet.

Income Tax
Taxes of the financial year have been reported in the income statement as income taxes. Deferred tax or liabilities or receivables has not been recorded on the financial statement.

Foreign Currency Items
The transactions in the income statement have been converted into euro using the exchange rate of the transaction date. Receivables and payables denominated in foreign currency have been converted into Euro by using the exchange rate of the European Central Bank at the balance sheet date.

Net Sales
Sales of goods is recorded when goods have been handed over to the customer or the services have been rendered. Sales are shown net of indirect sales taxes and discounts.

Notes to the Financial Statements of the Parent Company

1000 EUR	2022	2021
1. NET SALES BY SEGMENTS		
Other functions	790	808
Total	**790**	**808**
2. NET SALES BY MARKET AREAS		
Europe	701	691
Americas	89	117
Asia		
Total	**790**	**808**
3. OTHER OPERATING INCOME		
Other operating income	0	0
Total	**0**	**0**
4. NUMBER OF PERSONNEL AND PERSONNEL EXPENSES		
Average number of personnel during the period		
Other functions	7	7
Total	**7**	**7**
Number of personnel at the end of the year	7	7
Personnel expenses *		
Management salaries	353	320
Board of Directors	176	169
Other salaries and wages	472	551
Total	**1,001**	**1,040**
Pension expenses	136	117
Other social expenses	17	20
Total	**1,154**	**1,177**

* The Board of Directors' salaries include the share-based compensation.

1000 EUR	2022	2021
5. DEPRECIATION AND REDUCTION IN VALUE		
Intangible rights	14	14
Other capitalized long-term expenditures	0	0
Machinery and equipment	0	0
Total	**14**	**14**

Notes to the Financial Statements of the Parent Company

1000 EUR	2022	2021
6. OTHER OPERATING CHARGES		
IT equipment and SW expenses	33	42
Premises expenses	17	17
Administrative services	440	292
Travel expenses	39	14
Voluntary staff expenses	22	14
Other business expenses	320	444
Total	**872**	**823**
Auditor's charges		
Auditing	23	28
Tax advice	1	0
Other services	1	2
Total	**25**	**30**
7. FINANCIAL INCOME AND EXPENSES		
Income from investments		
From Group companies		
From others	63	48
Total	**63**	**48**
Other interest and financial income		
From Group companies	2,284	2,005
From others	35	43
Total	**2,320**	**2,048**
Other interest and financial expenses		
To Group companies	3	0
To others	790	761
Total	**793**	**761**
Reduction in the value of the investment	0	0
Net financial income and expenses	**1,590**	**1,335**
Net financial income and expenses including exchange gains and losses	-237	-13
8. APPROPRIATIONS		
Received Group contributions	1,500	0
9. INCOME TAX		
Other direct taxes	0	3
Total	0	3

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
10. INTANGIBLE ASSETS		
Intangible rights		
Acquisition cost Jan. 1	341	334
Investments during the period	4	8
Disposals during the period		
Acquisition cost at the end of the period	**345**	**341**
Accumulated depreciation Jan. 1	-254	-241
Depreciation for the period	-14	-14
Book value at the end of the period	**77**	**87**
Other capitalized long-term expenditures		
Acquisition cost Jan. 1	6	6
Investments during the period		
Acquisition cost at the end of the period	**6**	**6**
Accumulated depreciation Jan. 1	-6	-6
Depreciation for the period		
Book value at the end of the period		
Intangible assets total		
Acquisition cost Jan. 1	348	340
Investments during the period	4	8
Acquisition cost at the end of the period	**352**	**347**
Accumulated depreciation Jan. 1	-261	-247
Depreciation for the period	-14	-14
Book value at the end of the period	**77**	**87**

Notes to the Financial Statements of the Parent Company

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
11. TANGIBLE ASSETS		
Machinery and equipment		
Acquisition cost Jan. 1	6	6
Investments during the period		
Disposals during the period		
Acquisition cost at the end of the period	**6**	**6**
Accumulated depreciation Jan. 1	-6	-5
Depreciation for the period	0	0
Book value at the end of the period	**0**	**0**
Other tangible assets		
Acquisition cost Jan. 1	71	71
Acquisition cost Dec. 31	**71**	**71**
Book value at the end of the period	**71**	**71**
Tangible assets total		
Acquisition cost Jan. 1	77	77
Investments during the period		
Acquisition cost at the end of the period	**77**	**77**
Accumulated depreciation Jan. 1	-6	-5
Depreciation for the period	0	0
Book value at the end of the period	**71**	**71**
12. INVESTMENTS		
Investments in subsidiaries		
Acquisition cost Jan. 1	39,749	39,749
Book value at the end of the period	**39,749**	**39,749**
Investments in other shares		
Acquisition cost Jan. 1	1	1
Book value at the end of the period	**1**	**1**
Investments total		
Acquisition cost Jan. 1	39,750	39,750
Book value at the end of the period	**39,750**	**39,750**

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
13. CURRENT RECEIVABLES		
Accounts receivable		
From Group companies	0	1
Total	**0**	**1**
Other receivables		
From Group companies	98,607	98,455
From others	52	25
Total	**98,659**	**98,480**
Prepaid expenses and accrued income		
From Group companies	1,500	0
From others	60	27
Total	**1,560**	**27**
Current receivables total	**100,219**	**98,508**

14. FINANCING SECURITIES

Cash and cash equivalents include liquid and low-risk financing securities.

Financial assets at fair value through profit or loss	5,696	5,732

15. SHAREHOLDERS' EQUITY

Share capital at the beginning of the period	12,941	12,941
Share capital at the end of the period	**12,941**	**12,941**
Invested unrestricted equity fund at the beginning of the period	25,953	25,953
Share issue		
Invested unrestricted equity fund at the end of the period	**25,953**	**25,953**
Retained earnings at the beginning of the period	90,472	91,916
Dividend distribution	0	0
Net profit for the period	1,840	127
Retained earnings at the end of the period	**92,312**	**92,044**
Distributable earnings at the end of the period	118,265	117,997
Shareholders' equity total	**131,206**	**130,938**

Notes to the Financial Statements of the Parent Company

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
16. LIABILITIES		
Current liabilities		
Accounts payable		
To Group companies	0	7
To others	163	30
Total	**163**	**37**
Other short-term liabilities		
To Group companies	2,936	2,822
To others	32	33
Total	**2,968**	**2,854**
Accrued expenses and deferred income		
To others	321	276
Total	**321**	**276**
Current liabilities total	**3,452**	**3,167**

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
17. SECURITIES AND CONTINGENT LIABILITIES		
On behalf of Group companies		
Guarantee limits	2,992	3,032
of which guarantees in use total		
Leasing liabilities		
Falling due in the next year	1,011	1,113
Falling due after one year	868	1,072
Other liabilities		
Credit Cards	6	1
Rental liabilities		
Falling due in the next year	9	9
Contractual liabilities		
Falling due in the next year	16	13
Falling due in 1–5 years		

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
18. NOMINAL VALUE OF CURRENCY DERIVATES		
Foreign exchange forwards		
Market value	33	21
Nominal value	5,000	5,000

	Owned by Parent, %	Owned by Group, %	Book value 1000 EUR
19. SHARES AND HOLDINGS			
Subsidiaries			
Bittium Technologies Oy	100.00	100.00	39,749
Other holdings by Parent			
Partnera Oy			1

Proposal by the Board of Directors on the Use of the Profit Shown on the Balance Sheet and the Payment of the Dividend

According to the parent company's balance sheet at December 31, 2022, the distributable assets of the parent company are EUR 18,265,062.42 of which the profit of the financial year is EUR 1,839,891.91.

The Board of Directors proposes that the Annual General Meeting to be held on April 12, 2023 resolve to pay EUR 0.05 per share as additional dividend based on the adopted balance sheet for the financial period of January 1, 2021–December 31, 2022.

Bittium Corporation follows a dividend policy that takes into account the Corporation's net income, financial status, need for capital and financing of growth.

In Oulu, February 9, 2023

Erkki Veikkolainen
Chairman of the Board

Pekka Kemppainen
Member of the Board

Veli-Pekka Paloranta
Member of the Board

Riitta Tiuraniemi
Member of the Board

Petri Toljamo
Member of the Board

Hannu Huttunen
CEO

Auditor's Note

Auditor's Report has been issued today.

In Oulu February 10, 2023

Ernst & Young Oy
Authorized Public Accountant Firm

Jari Karppinen, Authorized Public Accountant

Auditor's Report

(Translation of the Finnish original)

To the Annual General Meeting of Bittium Oyj

Report on the Audit of Financial Statements

Opinion

We have audited the financial statements of Bittium Oyj (business identity code 1004129-5) for the year ended 31 December, 2022. The financial statements comprise the consolidated balance sheet, statement of comprehensive income, statement of changes in equity, statement of cash flows and notes, including a summary of significant accounting policies, as well as the parent company's balance sheet, income statement, statement of cash flows and notes.

In our opinion

- the consolidated financial statements give a true and fair view of the group's financial position as well as its financial performance and its cash flows in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU.
- the financial statements give a true and fair view of the parent company's financial performance and financial position in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements.

Our opinion is consistent with the additional report submitted to the Audit Committee.

Basis for Opinion

We conducted our audit in accordance with good auditing practice in Finland. Our responsibilities under good auditing practice are further described in the *Auditor's Responsibilities for the Audit of Financial Statements* section of our report.

We are independent of the parent company and of the group companies in accordance with the ethical requirements that are applicable in Finland and are relevant to our audit, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

In our best knowledge and understanding, the non-audit services that we have provided to the parent company and group companies are in compliance with laws and regulations applicable in Finland regarding these services, and we have not provided any prohibited non-audit services referred to in Article 5(1) of regulation (EU) 537/2014. The non-audit services that we have provided have been disclosed in note 5 to the consolidated financial statements.

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

Key Audit Matters

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

We have fulfilled the responsibilities described in the *Auditor's responsibilities for the audit of the financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying financial statements.

We have also addressed the risk of management override of internal controls. This includes consideration of whether there was evidence of management bias that represented a risk of material misstatement due to fraud.

KEY AUDIT MATTER	HOW OUR AUDIT ADDRESSED THE KEY AUDIT MATTER
Recognition of Revenue from long-term construction contracts *We refer to the Group's accounting policies and to the note 3* Fixed price contracts in long-term construction contracts are part of the Group's business. These projects constitute a significant portion of the consolidated net sales. In the financial statements 2022 the revenue recognized from these projects was 9.2 million euro, which is 11 percentage of the total net sales. The group applies the percentage of completion method for recognizing revenue from long-term construction contracts, which involves the use of significant management estimates. E.g. the following estimates include significant management judgement for each project: stage of completion, total contract costs and the project margin. During the performance phase, the financial outcome of a project is based on the estimates made by the management and will come more accurate when the project advances. In the Group net sales is a key performance indicator, which might generate an incentive to prematurely recognition of revenue. Revenue recognition was determined to be a key audit matter and a significant risk of material misstatement referred to in EU Regulation No 537/2014, point (c) of Article 10(2), because of the risk related to correct timing of revenue.	Our audit procedures in which risk of material misstatement on revenue recognition has been taken into account included, among other: • assessment of the accounting principles of the group on revenue recognition and comparing them with the applied accounting standards; • examination of the nature of revenue, stage of completion and financial contract terms behind the revenue recognized in the long-term projects; • tests of revenue recognition, which included testing of the calculations and the estimates used in the revenue recognition; • assessing the revenue recognized with substantive analytical procedures and • assessment of the disclosure in respect of the revenue.

Responsibilities of the Board of Directors and the Managing Director for the Financial Statements

The Board of Directors and the Managing Director are responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU, and of financial statements that give a true and fair view in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements. The Board of Directors and the Managing Director are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors and the Managing Director are responsible for assessing the parent company's and the group's ability to continue as going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting. The financial statements are prepared using the going concern basis of accounting unless there is an intention to liquidate the parent company or the group or cease operations, or there is no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of Financial Statements

Our objectives are to obtain reasonable assurance on whether the 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 good auditing practice 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 the financial statements.

As part of an audit in accordance with good auditing practice, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the 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 parent company's or 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 the Board of Directors' and the Managing Director'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 east significant doubt

on the parent company's or 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 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 company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events so that the financial statements give a true and fair view.
- 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 those charged with governance 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 those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and 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 those charged with governance, we determine those matters that were of most significance in the audit of the 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.

Other Reporting Requirements

Information on Our Audit Engagement

We were first appointed as auditors by the Annual General Meeting on April 12, 2002, and our appointment represents a total period of uninterrupted engagement of 21 years.

Other Information

The Board of Directors and the Managing Director are responsible for the other information. The other information comprises information included in the report of the Board of Directors and in the Annual Report but does not include the financial statements and our report thereon. We obtained the report of the Board of Directors prior to the date of the auditor's report, and the Annual Report is expected to be made available to us after the date of the auditor's report.

Our opinion on the financial statements does not cover the other information.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. With respect to report of the Board of Directors, our responsibility also includes considering whether the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

In our opinion, the information in the report of the Board of Directors is consistent with the information in the financial statements and the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, 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.

Oulu, February 10, 2023

Ernst & Young Oy
Authorized Public Accountant Firm

Jari Karppinen
Authorized Public Accountant

Connectivity to be trusted.
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