

# Connectivity to be trusted.

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Annual Report  
2023

**Bittium**



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# Bittium in 2023

## Medical Technologies

Bittium offers medical technology for monitoring biosignals in the areas of cardiology and neurophysiology.

## R&D Services

Bittium offers professional R&D engineering services and technology expertise in the areas of wireless devices, network infrastructure, and IoT solutions.

## Secure Communications & Connectivity

Bittium provides highly secure communications and connectivity solutions for public safety & security, defense, and other professionals' markets.

## Tactical Communications

Bittium specializes in military radio and communication solutions by providing advanced products and services for wireless and wire line tactical communications.



Personnel

**526**  
in total

Net Sales  
**75.2**  
MEUR

Products  
**45.8**  
MEUR

Services  
**29.5**  
MEUR

Product-based Net Sales  
Medical **21.8** MEUR  
Defense & Security **24.0** MEUR

Services-based Net Sales  
Engineering Services **17.0** MEUR

Operating Result  
**-4.3**  
MEUR

Cash and Other  
Liquid Assets  
**8.3**  
MEUR

Equity Ratio  
**69.9**  
%

Net Gearing  
**13.2**  
%

Earnings per Share  
**-0.153**  
EUR

Order Book  
**27.6**  
MEUR

# CEO's Review

The year 2023 was a year of changes at Bittium. There were changes in the Company's Management Group, we updated our strategy, and started a large-scale process with the aim of turning the company onto the path of profitable growth.

The updated strategy focuses on the years 2024 and 2025 and has three very essential priorities: 1. change from R&D organization to a customer- and growth-oriented operating model through segment organizations, 2. focusing on current products and increasing their market shares, and 3. increasing efficiency and lightening the cost structure, which is expected to improve the company's profitability and cash flow significantly.

In accordance with the updated strategy, Bittium has three Business Segments: Defense & Security, Medical, and Engineering Services. We reorganized our operations to optimize the operations of the independent Business Segments and went through change negotiations in the Finnish subsidiaries. In addition, previously centralized group functions are now largely divided into Business Segments, meeting the needs of each Segment best. As a result of the reorganization and change negotiations, the number of personnel in group operations dropped from approximately 130 to 50. In connection with the transition to the new reporting structure, we decided to separate the remaining group functions into own Segment in order to further improve transparency into the development of the company's Business Segments. Financial reporting based on these - altogether four segments - will start this year.

The net sales and operating result in 2023 decreased from previous year. The fourth quarter was the strongest, as typical, but also there the net sales remained lower than in the corresponding period the year before. There were also non-recurring costs of EUR 0.7 million resulting from the change negotiations and a non-recurring write-down of EUR 2.5 million due to the impairment of inventory both scheduled for the fourth quarter. With non-recurring costs the operating result of the fourth quarter was EUR 1.0 million positive. The annual cost savings of EUR 6.0 million, resulting from the change negotiations, will fully affect the 2024 figures.

The net sales of 2023 decreased by 8.8 percent. The financial development was affected by Medical business' delays in product deliveries in the beginning of the year, caused by the component shortage, and slower than estimated sales development outside of US markets, as well as by the slowness of medical device regulatory approvals. Also, the slower-than-estimated progress of multi-year projects in the Defense business last year, and thus the timing of the product orders affected the 2023 net sales.

In the Defense & Security business, pilot projects with our customers abroad progressed well, but slower than expected. With the Finnish Defense Forces we renewed a significant framework agreement regarding the tactical communication system and products. This cooperation is very important for Bittium in terms of the development of the entire tactical communication product portfolio, and this framework

agreement confirms the continuation of the cooperation in the coming years. The deployment of Bittium Tough SDR™ software-defined radios has progressed according to the plans of the Defence Forces, with the aim of ensuring the performance of the equipment during 2024 to start a wider deployment of the radios. NATO adopted the ESSOR waveform developed by the a4ESSOR consortium as a standard for tactical communications, which enables faster and more secure data transmission of NATO member countries in both national and coalition force operations. Our Tough SDR radios also use the ESSOR waveform.

The importance of secure communication has emphasized, and the interest, especially among authorities, increased. We delivered secure Bittium Tough Mobile™ phones and secure software solutions to several European countries. We applied for a NATO information security listing for the Bittium Tough Mobile 2 C solution last year, and according to the feedback we received, the solution meets all the necessary requirements, but the listings are delayed due to the work backlog of authorities.

In medical technology products, we continued our good cooperation with our key customer Boston Scientific regarding ECG measuring devices. In the beginning of the year, we joined forces to solve the challenges related to the availability of components of the devices and were able to deliver all product deliveries planned for this year. We signed a distributor agreement for Bittium Respiro™, a home sleep apnea test and analysis solution, with ResMed, a leading provider of innovative medical devices and

solutions to improve respiratory health and well-being. The piloting of Respiro solution in Europe has progressed well, and recent clinical studies have shown positive feedback on the solution's technical properties, analysis quality, and ease of use. We have an ongoing process for medical device sales license from the FDA (Food and Drug Administration) needed for the US market. The regulatory requirements have tightened and increased during the last couple of years. The duration of these new studies is estimated to be at least one year. We expect the good development of the remote diagnostics market to continue, positively affecting the development of Bittium's net sales and profitability during 2024.

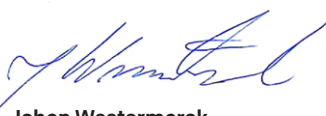
Despite the prevailing cost-saving needs in the markets among our customers, the sales of Bittium's R&D services grew during 2023. The growth was driven by the accelerating digitization in various industries increasing the need for design services in several industries, as well as the increase of European companies' product design work in Europe. We were able to win new customers, and I am particularly pleased with the work we have done in the past year to increase sales, especially in the international markets.

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

In this context, I would like to thank our customers and partners for the past year and for the trust that prevails between our companies. I thank our personnel for their good work, commitment, and resilience, especially in the middle of all these changes. I would also like to thank all our shareholders for their trust and perseverance.

In 2024, we will focus on achieving the goals set for us in the new segment orga-

nization model, along with new operating methods and processes. We have published our main strategic focus points for the next two years to get the company on a healthy profitable growth path. With systematic work and the right prioritizing, we have every opportunity to achieve the goals set for us.



**Johan Westermarck**  
CEO







# Bittium's Business and Operating Environment 2023

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# Business and Operating Environment

## Bittium in Brief

Bittium is a Finnish technology company specializing in the development of reliable, secure communications and connectivity solutions, and healthcare technology products and services measuring and monitoring biosignals outside the hospital.

Bittium, formerly known as Elektrobit Ltd, was founded in 1985. It changed its name to Bittium after selling its Automotive business and the rights to the brand name Elektrobit on July 1, 2015. Bittium is a publicly listed company on Nasdaq Helsinki as BITTI.

Bittium operates in Finland, Germany, and the United States. The company decided at the end of 2023 to close its offices in Mexico and Singapore and continue operations in these countries with partners. Bittium headquarters is located in Oulu, and the company's other Finnish offices are in Espoo, Kaajani, Kuopio, and Tampere.

At the end of 2023, Bittium had 526 employees, of which the majority were R&D engineers. In 2023, the Company did not undergo any significant changes in relation to its size, operating areas, ownership, distribution of shares, income formation, or the maintenance of operations.

At the beginning of 2022, Bittium started developing its operations towards independent business units. The renovation was completed during 2023. With the change, the company seeks a clearer focus for its operations, growth and improvement of the ability to generate results.

As part of this development, the company changed its organizational structure to serve its independent business units more efficiently. The operations of the entire group were reorganized by transferring, among other things, the previously jointly centralized group functions to a large extent to individual business segments according to the needs of the segment.

The company will start financial reporting based on the new segment structure from January 1, 2024. There are four reporting segments in the new reporting model: the company's three business segments (Defense & Security, Medical and Engineering Services) and the Group Functions segment. The goal of moving to a new reporting structure is to improve transparency into the company's business segments and their development.

Bittium operates globally. With regards to sustainable business, Bittium's products and services comply with the statutory requirements, directives, general standards, and frameworks, such as SA 8000 (social responsibility), ISO 14001 (environmental systems), RoHS I, II, III (hazardous substances), REACH (chemicals regulations), WEEE recyclability of waste electrical and electronic equipment), ETJ+ / ISO 50001 (energy efficiency), and GRI G4 (reporting guideline for sustainable development). As a global enterprise, the Company also takes the special requirements of its international customers into account.

## Bittium's Mission

Our mission is to utilize our world-class expertise and innovation to enable secure embedded technology for the benefit of people and societies.

## Bittium's Vision

Our vision is to become a global player in building embedded secure technology solutions within complex environments.

# Business Model

## Megatrends and Their Phenomenons

Geopolitical Uncertainty, Internet of Things (IoT) and continuously evolving technology, aging population, growth of remote diagnostics, information security



## Customer Groups

Companies of different sizes, OEMs, system integrators, defense forces and governments, hospitals and hospital districts, other public administration and organizations, research institutes, universities



### Effects on the Customer

- Reliable Finnish partner
- Products and solutions that represent the latest technology
- High product performance and long lifecycle
- Scalable product platforms
- Short customization times and fast market entry of solutions
- Lower costs and risks in customer's own R&D projects



### Products, Services and Solutions

- Products and services in tactical communications
- Secure phones and the related software and systems
- Information security software
- Design services for wireless communications
- IoT and digitalization services
- Biosignal measuring and monitoring equipment in the areas of cardiology and neurology



## Bittium's Vision

is to become a global player in building embedded secure technology solutions within complex environments.



### Effects on Bittium

- Long-term projects and customer relationships build stability
- Service projects enable applying new technologies that strengthen the expertise of both the company and its customers
- Extensive understanding of commercial technologies and the customized communications systems used by authorities
- Integrated expertise in mobile and online technologies
- Good growth opportunities



### Income Streams

- Products and product platforms, systems, and the services related to these
- R&D services
- Maintenance fees
- Licenses

## Enablers

### Key Resources

- Experts
- Own products
- IPR
- Partners
- Strong balance sheet
- Efficient processes
- Quality and environmental systems

### Key Focus Areas

- Personnel
- R&D
- Sales and marketing
- Way of working
- Digitalization

### Expertise

- Wireless technologies
- Software
- Mechanics and software solution integrations, testing, and verification
- Extensive expertise in systems and specialist areas
- Information security
- Measurement of biosignals
- Way of working

### Channels

- Own sales
- Retailers
- System sales
- Integrators
- Webshop

## Bittium's Mission

is to utilize our world-class expertise and innovation to enable secure embedded technology for the benefit of people and societies.

## Updated Strategy

On October 30, 2023, Bittium announced its updated strategy concerning the years 2024 and 2025. Bittium's main goals are to achieve an average annual net sales growth of more than 10 percent and an operating profit level of 10 percent. The updated strategy will enable the achievement of the set goals.

In accordance with the updated strategy, the company has three Business Segments: Medical, which focuses on measuring bio-signals and remote monitoring, Defense & Security, which offers products and services to the defense and security markets, and Engineering Services, which offers R&D services. Group operations that were previously centralized are now also largely divided into the company's three Business Segments, best meeting the needs of each segment. This was an essential change to optimize the operation of more independent businesses.

The company's updated strategy has three main focus areas. The first one is a change from a product development organization to a customer-centric, growth-oriented operating model through its segment organizations. Secondly, the company focuses strongly on its current products and increasing their market shares. The R&D work is mainly concentrated on further improving the competitiveness and productivity of these products. Thirdly, the company seeks to increase efficiency in its own operating methods and has streamlined its cost structure, which is expected to significantly improve the company's profitability and cash flow.

Between 2016 and 2023, the company's two Business Segments, Defense & Security and Medical, have strongly invested in the development of their own products. This has maintained the company's high average annual R&D investment level of around EUR 20 million, corresponding to an average of approximately 25 percent of the company's annual net sales. Both product-oriented Business Segments will now focus on

continuous improvement of the competitiveness of existing products and development of their features. Continuous product improvement is highly important to competitiveness of both Business Segments. In addition, the company will use development cooperation with other companies in its product development in the future. In the R&D oriented operational model the cost structure in the company has been heavy due to the large R&D projects.

The **Medical Business Segment** consists of three business areas, which are the measurement and analysis of the electrical activity of the heart (ECG), the measurement and analysis of the electrical activity of the brain (EEG), and the measurement and analysis of sleep apnea. In business, the focus is specifically on further improving the competitiveness, and productivity of the products, as well as on the efficiency of operations.

In the medical technology market, significant development is taking place regarding the treatment of patients, especially outside hospitals. Increasing efforts are being made to prevent diseases and health problems with the help of early diagnostics. The aim is to discharge patients at an even earlier stage to reduce hospital and treatment days. These significantly increase the efficiency of healthcare processes, reduce costs, and improve the treatment experience. The prerequisite for the prevention of health problems and early discharge is enabling accurate monitoring and measurement in home conditions with the help of remote monitoring.

The offering of the Medical Business Segment focuses on remote monitoring solutions. Bittium has solid and proven world-class biosignal processing technology expertise. In the coming years, the company will focus on its product business to also increase the amount of recurring net sales, both with the help of software and various multi- and single-use products. In the medical business, the focus will be on cooperation with existing international key custom-

ers to increase market shares together, and on acquiring new customers.

The **Defense & Security Business Segment** consists of three business areas that are defense industry products (Defense Products), defense industry product development services (Defense Services), and secure products and services (Security). Bittium's business consists of tactical communication solutions aimed at the defense market and high security communication solutions aimed at authorities and the professional user market.

Russia's war of aggression against Ukraine has increased the defense budgets of various countries and increased the states' interest to modernize their tactical communication systems. The defense forces of different countries and other authorities need networks for tactical data transmission, where increasingly mobile network users can reliably and securely transfer growing amounts of data. Finland's NATO membership is also expected to have a positive effect on the demand for Bittium's defense and secure products, especially in NATO countries. Bittium has superior waveform quality and secure wireless technology integrated with hardware and software intended for defense and authorities' use.

Over the past years, the company has made significant investments to expand its product portfolio. The products and systems are now at an internationally very competitive level, both in terms of coverage and technical characteristics. In the future, the company will focus on the continuous improvement of the competitiveness of existing products and the development of features to ensure the preservation of competitiveness. The company will put emphasize strongly in its key customers and invest in international sales and marketing to pursue new customers. The company's goal is to grow significantly the international product business and achieve an internationally significant position as a provider of tactical communication and high security communication solutions.

In the **Engineering Services Business Segment**, Bittium offers its customers R&D services and wireless connectivity solutions for the development of innovative products in a secure and evolving wireless environment. The company has focused its R&D service offering around radio technologies and embedded devices. Bittium has world-class expertise in wireless technologies and comprehensive product development throughout the whole product life cycle.

In the mobile telecommunications, investments in the development of new features continue, and the importance of software development regarding the development of 5G networks is strengthened. Along with digitization, secure IoT (Internet of Things) is a significant development area in almost all industries, where the demand is created by the growing need of companies to digitize their operations, collect data wirelessly and transfer data to cloud services, as well as monitor and control devices and systems remotely. Also, the goal of western companies to shift the focus of R&D to an increasing extent, e.g., to Europe, creates more demand for companies offering R&D services and wireless connectivity solutions.

In the coming years, Bittium will continue to grow its international customer base, especially in the Industry IoT market segment. The company will also invest in developing strategic partnerships with its current customers.

## 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.

# Products and Services



Bittium Tough SDR™

# Defense & Security Business Segment

## Tactical and Secure Communication Systems

In the Defense & Security business segment, Bittium offers globally leading products, services, and systems for its customers in the defense, security, and public safety markets. Bittium's competitiveness in these markets is based on trust and reliability, high-quality and performance of its products, and services, as well as on advanced technology and security know-how developed within the company for more than 35 years.

### **Bittium Tough Mobile™ Product Family**

At the core of the information security features of the Bittium Tough Mobile smartphones lies their multilayered security structure, which is based on a hardened Android™ operating system, unique device-based solutions, the information security features, and software integrated into the source code. The phones are fully designed and manufactured in Finland and Bittium ensures supervised and secure manufacturing and supply of the smartphones to customers. Bittium Tough Mobile smartphones together with Bittium Secure Suite device management and encryption software product can be certified for secure use by different national government authorities. Bittium Tough Mobile 2 C smartphone together with Bittium Secure Suite back-end system form a smartphone-based communication solution that has been certified for CONFIDENTIAL security level (NC-SA-FI). As the smartphones have been designed for use by authorities, they have a significantly longer availability and lifespan and better availability of security updates compared to conventional smartphones.

**Bittium Tough Mobile™ 2 Tactical** is a complete solution that enables soldier mobile communications. The solution is based on the secure and rugged Bittium Tough Mobile 2 smartphone that is connected with either Bittium Tough SDR Handheld radio or third-party tactical radios. The solution is compatible with different battle management systems, which enables real-time and efficient sharing of situational awareness in tactical networks.

**Bittium Secure Suite™** is a device management and encryption software product that complements the Bittium Tough Mobile smartphone with a scalable set of new software services for remote management, remote attestation, and securing the network connections of the device. Bittium Tough Mobile smartphone and Bittium Secure Suite form a unique, complete, reliable system for processing and transferring sensitive and classified material and securing critical communication.

**Bittium Secure Call™** is a communication application for public authorities and businesses with security for end-to-end encrypted voice and video calls, group calls, messages with attachments, group messaging, push-to-talk voice messages, and a message that is destroyed after a predetermined time. Authority-level security is achieved when Bittium Secure Call is used in conjunction with Bittium Tough Mobile smartphones and the Bittium Secure Suite background system.

**Bittium SafeMove® Mobile VPN** software enables the utilization of all IP-based applications and networks by securing the connections between the workstation or mobile device and corporate services immediately from the startup of the phone. With Bittium SafeMove, for instance, home care workers are allowed to have full access to the same systems and applications they would have on a hospital desktop, enabling safe and real-time access to patient records. The Windows version of the SafeMove Mobile VPN product is approved for national security class TL IV data encryption.

**Bittium SafeMove® Analytics** is an advanced monitoring and reporting module that helps organizations to monitor network connectivity and performance to improve productivity and user experience. The analytics tool continuously gathers connectivity data such as connectivity status, speed, throughput and bytes transferred, network type, and Wi-Fi network information. It is also easy to enhance the tool with positioning information if GPS data is available. In addition, the security features enable immediate report of possible security deviations in the mobile phones used by the employees. This enables reacting to the cyber threats without any delay, for example, by disconnecting a device that reported the deviation from the company network for the time of clearance of the situation.

**Bittium Tactical Wireless IP Network™ (TAC WIN)** is a Software-Defined Radio based wireless broadband network system intended for military and public safety use. With the system MANET (mobile ad hoc network), link and connection networks can be formed into one logical IP network quickly, no matter what the location is. Bittium TAC WIN is an excellent data transfer solution for defense forces' troops, or for example, weapon systems and unmanned vehicle platforms due to its mobility, low latency, and high data transfer capacity features.

**Bittium Tough SDR™** product family consists of Bittium Tough SDR Handheld, tactical radio for dismounted soldiers, and Bittium Tough SDR Vehicular, two-channel tactical radio for vehicle installations. The uniquely wide range of frequency bands of the radios improves combat survivability, and using several waveforms, even simultaneously, improves compatibility and enables operations on different levels and missions.

**Bittium Tough VoIP™** product family's products enable tactical IP calls and broadband data transfer even in demanding conditions. Products are easily integrated into existing IP infrastructure. The product family consists of a range of tactical IP-based communication products, including Bittium Tough Comnode device and Bittium Tough VoIP Field Phone 2 as well as Bittium Tough VoIP Service and Bittium Tough VoIP Softphone software products.

**Bittium Tough Comnode™** is a versatile device, which fulfills the data transfer needs of mobile troops by functioning, for example, as a VoIP phone, an IP router, and an SHDSL repeater. Additionally, the Comnode device

also enables the use of legacy Combat Net Radios (CNR) as part of the IP-based tactical communications system (Radio over IP, RoIP).

**Bittium Tough VoIP Field Phone™ 2** is a next-generation VoIP phone, which, thanks to its features, accessories, and powering options, is the optimal solution for battlefields, vehicles, and command posts. Together with the distributed and survivable Bittium Tough VoIP Service™, calls between the Field Phone 2 users are enabled regardless of where and how the users have been connected to the network.

**Bittium Tough VoIP Service™** is a software product, which can be used to connect both fixed data network users and wireless tactical data network users to the same voice service network. It is a flexible and decentralized solution which can be installed on routing elements of the network, such as the Bittium TAC WIN Tactical Router, the Bittium Tough Comnode device, or the Bittium Tough SDR radios.

**Bittium Tough VoIP Softphone™** is a VoIP application designed especially for computer users. It can be used for VoIP calls, instant messaging, and conference calls in the Bittium Tough VoIP Service network.

**Bittium Tactical Power Pack™** is specifically designed for tactical data transfer as an accessory to the Bittium Tough SDR Handheld radio and the Bittium Tough Comnode device, for example, but can also be easily used with standard tablets and smartphones via USB. The Tactical Power Pack enables uninterrupted field operation for the devices.

**Bittium Tactical Device Management™** is an advanced system that enables secure deployment and operative use for tactical communication devices. With the system, different defense forces can maintain sovereign, centralized, and efficient control over Bittium's tactical devices. The system enables the preparation of the devices for operative use and management of the devices during operative use, including commissioning, software updates, and key management.

**Bittium Tactical Network Management™** is an easy-to-use and visual system for managing Bittium's tactical communication networks and network nodes, including Bittium Tactical Wireless IP Network, Bittium Tough SDR, and Bittium Tough Comnode. Different defense forces can use the system's tools for planning the locations of the networks and their nodes so that optimal network performance can be achieved. When the networks are in operative use, the system provides a real-time and reliable status view of network operation and node configurations. The data collected from the networks and nodes during operative use is recorded and can be easily analyzed. This enables optimizing the network performance for upcoming operations.





Bittium Tough SDR Handheld™  
Bittium Tough SDR Vehicular™

## Year 2023

The world's political situation changed significantly in February 2022 as Russia attacked Ukraine. The outbreak of war caused several countries to increase their defense budgets, which has had an increasing effect on the demand for defense sector products and services. The interest in modernizing the states' tactical communication systems to meet the needs of modern warfare has also grown.

Interest in Bittium's tactical communication solutions has remained on a high level, and the ongoing international customer pilots have progressed well. Bittium is involved in several tenders regarding tactical communication products and systems, which may take several years, depending on the scope of each project. The feedback on Bittium's products in the field tests has been positive, and we expect the results of the ongoing tenders during the current year.

Close cooperation with the Finnish Defense Forces continued. Bittium's tactical backbone network and the related products and radios are used by all defense branches of the Defense Forces, supporting the modern way of fighting, where the mobility and management of the forces on the move and effective communication are essential. In 2023, product delivery volumes remained low compared to the corresponding time of the previous year caused by the slow progress in several customer projects during last year. This is typical in multi-year customer projects, where the annual delivery quantities vary between the different phases of the project.

On November 14, 2023, Bittium and Finnish Defense Forces signed a new framework agreement for the purchase of products intended for tactical communication. The contract concerns the purchase of Bittium Tactical Wireless IP Network™ (TAC WIN) software radio system products and Bittium Tough Comnode™ communication equipment and

related accessories during the years 2023–2028. The Framework Agreement has a maximum value of EUR 51.6 million, and based on the Agreement, the Finnish Defense Forces will issue separate purchase orders in several batches during the validity period of the Agreement. The first order based on this Framework Agreement was placed on December 21, 2023, with a value of EUR 3.7 million. The delivery of the ordered products started in 2023.

The deployment of Bittium Tough SDR™ software-defined radios has progressed according to the plans of the Defence Forces, with the aim of ensuring the performance of the equipment during 2024 to start a wider deployment of the radios. The waveform development of the radios and the development of new functionalities for the customer continued as planned.

In December, the Finnish Defense Forces ordered development work from Bittium for a new software-based router intended for

tactical communication. The software router enables the formation of even larger network entities for the tactical communication needs of the mobile forces. The value of the order was approximately EUR 4.4 million and the development work will be carried out during the years 2024 and 2025.

In Austria, the deployment of Bittium's tactical communication systems by the local army continued and the delivery of system products and the integration and testing of products and systems continued.

The discussions about cooperation with international companies developing air defense and sensor systems progressed.

In November, NATO approved the ESSOR High Data Rate Waveform, developed by the a4ESSOR consortium, as a standard for tactical communication interoperability (STANAG 5651). Bittium has been one of the partners of the industrial a4ESSOR consortium since its foundation. With the ratification of the standard, the waveform will be available to all NATO member countries, thus enabling faster and more secure data transfer in both national and coalition forces' operations. Bittium provides the waveform to its customers together with Bittium Tough SDR™ product family radios.

With Finland's NATO membership, interest in Bittium's products has increased, and the membership is expected to strengthen the company's competitive position, especially in tenders for NATO countries. The membership also enables Bittium to implement NATO waveforms and encryption solutions, if necessary, and offers the opportunity to participate in the research programs of NATO countries.

Bittium has applied for a NATO information security listing for its secure Bittium Tough Mobile™ 2 C solution. The solution meets the criteria required for information security listing, but the listing is delayed due to the work backlog of the authorities updating the listing. Bittium has currently no information on the progress of the list update. Entering the list of NATO-approved devices is expected

to have a positive effect on the sales of the solution.

Interest in secure Bittium Tough Mobile™ mobile phones and information security-related software has increased due to numerous data security attacks. The sales volume of the devices increased during 2023. Phones, their background systems and software were delivered to several European countries for authorities' usage. The Bittium Tough Mobile™ 2 Tactical solution developed for military use has also aroused interest among the defense administration authorities of different countries, and several system pilots started during 2023.

## Market Outlook

### Defense and Public Safety Market

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 NATO membership is expected to have a positive effect on the demand for Bit-

tium's defense and official products, especially among NATO member countries.

Bittium continues its efforts to export tactical communications' products to international markets and aims to get new international customers during 2024. The long sales cycles of the defense industry affect sales development and forecasting.

The use of LTE technology, smartphones, and applications continue to increase in special verticals, such as public safety, creating demand for Bittium Tough Mobile™ secure smartphone and other customized special terminals based on Bittium's own product platform, as well as for secure software solutions. The awareness of mobile security risks is growing, and the interest in secure mobile devices and software solution is increasing. The sales of secure terminal products are expected to develop moderately according to the nature of public safety markets.



Bittium Tough Mobile™ 2  
Bittium Secure Call™

# Engineering Services Business Segment

## R&D Services

In the Engineering Services business segment (previously Connectivity Solutions) Bittium provides product development services in the areas of wireless communications, medical technologies, connected vehicles, and manufacturing. Outsourcing R&D either entirely or partly results in cost savings, and enables the scaling of customers' product development volumes according to their prevailing needs.

Bittium has long experience in wireless connectivity, information security, and different communications technologies such as 5G. The understanding of industry-specific requirements and strong competence in R&D services, wireless devices, digitalization, and information security, as well as the ISO 13485:2016 quality certificate for medical devices and equipment, enable Bittium to create solutions that bring clear added value to customers and partners.

## Year 2023

Despite the prevailing cost-saving pressure in the markets among our customers, Bittium's R&D services sales grew during 2023. The accelerating digitalization in various industries increased the need for design services. Especially in the Industrial IoT technology market, the growing need for cloud communication creates a need for companies to add wireless connectivity to their products. The increase of European companies focusing their R&D geographically on Europe, has also had a positive effect on the sales growth of Bittium's R&D services, especially of the device design.


Cooperation with customers continued well. Several customer projects were successfully completed, and the company's customer portfolio expanded during the past year with several new customers in the transport, traffic, and professional tool markets, among others. Customer projects include, for ex-

ample, the designing of a remotely controlled system and its connectivity solution, designing of connectivity parts for a traffic control system, and designing of measuring devices and their connectivity solutions intended for professional use.

## Market Outlook

### Telecommunication and Digitalization

In mobile telecommunications, the implementation of 5G is accelerating. 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 tra-



ditional 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 and IoT radio technologies are 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.

Focusing the R&D work of western companies to Europe, can be seen as an increase in demand for Bittium's R&D services, especially in terms of device design.

Demand for R&D services is affected by customers' cost-saving pressures in various industry segments.

# Medical Business Segment

## Products and Services for Biosignal Measuring

In the Medical business segment, Bittium offers its customers medical technology products and services for biosignal measuring in the areas of cardiology, neurology, and sports medicine. Combining medical technologies with Bittium's long-term experience and competence in wireless and security technologies gives Bittium an excellent basis to serve its customers in the medical sector.

**Bittium Faros™** is a versatile waterproof ECG device that is used for early detection of cardiac abnormalities in everyday life. Bittium Faros is ultra-small and lightweight, which enables precise full disclosure ECG measurements for long-term holtering, cardiac event monitoring, mobile cardiac telemetry and assessing the autonomic nervous system functions. Bittium Faros outpatient monitoring solutions include several software options for cardiac monitoring. The built-in arrhythmia detection algorithms on the Bittium Faros device are used for event recording and cardiac event monitoring. Bittium's solutions enable the earlier discharge of patients and the ability to react to detected arrhythmias faster.

### **Bittium OmegaSnap™ Product Family**

**Bittium OmegaSnap™ 1-CH ECG Electrode** is the most cost-effective, patient compliant and reliable patch electrode for long-term ECG measurements. It is also suitable for HRV applications and heart monitoring for stroke patients.

**Bittium MiniSnap™ Sensitive 1-CH ECG Electrode** is the most suitable one-channel electrode for 24h ECG measurements on small adults and children.

**Bittium OmegaSnap™ 2-CH ECG Electrode** is a two-channel electrode which is the best choice when more than one-channel measurement is needed for more comprehensive arrhythmia analysis while maximizing patient compliance.

**Bittium OmegaSnap™ 3-CH ECG Electrode** is a three-channel electrode, which is the most patient-compliant way to perform traditional three-channel measurements.

**Bittium OmegaSnap™ 1-CH Adapter and Bittium OmegaSnap™ Multi-CH Adapter** – Bittium OmegaSnap ECG electrode and Bittium Faros ECG device are connected to each other through the lightweight and discreet Bittium OmegaSnap Adapter. The adapter also allows the Faros device to be temporarily detached from the patch electrode when charging, for example. In the case of remote heart monitoring, such as the Bittium HolterPlus solution, it significantly enhances the long-term use of the same electrode, thus ensuring that the skin contacts of the attached electrode remain optimal for the measurement to continue. There are two adapter versions available: Bittium OmegaSnap 1-CH Adapter is designed for one-channel electrodes, and Bittium OmegaSnap Multi-CH Adapter is designed for two- and three-channel electrodes.

**Bittium Cardiac Navigator™** is a completely new software solution for analyzing clinical Holter ECG recordings. Its user-friendly and informative way of presenting data and intuitive analysis tools make it easier and more efficient to analyze ECG measurements lasting several days. Bittium Cardiac Navigator is designed to efficiently go through

longer measurements in a short time and thus speed up the final diagnosis.

**Bittium HolterPlus™** is a web-based remote cardiac monitoring solution, consisting of a Bittium Faros ECG device and Bittium MedicalSuite mobile application integrated into a secure smart device and Medical Suite remote service platform. Bittium HolterPlus enables remote monitoring and earlier discharge of the patient, and allows the ECG measurement data of the remotely monitored patient to be wirelessly transferred securely from the monitoring device to the Bittium MedicalSuite remote diagnostics service platform. From the platform the ECG recording can be downloaded to a cardiologist for the diagnosis, and the diagnosis will be uploaded for the treating physician for further patient care.

**Bittium MedicalSuite™** is an advanced remote monitoring service platform that utilizes wireless data transfer. Bittium Medical Suite is mainly aimed at service providers to facilitate secure information sharing and workflow management between service providers, clinics, and specialists. The Bittium MedicalSuite platform allows specialists to perform remote consultations regardless of location. The Service is a combination of intelligent analysis, wireless data transfer, reporting, and management modules that you can optimize according to your needs. The easy-to-use web user interface allows dashboard customization for different user groups, which ensures effortless workflow and improves efficiency. Currently, the system supports cardiac monitoring services, but the same technology can be applied to any biosignal measurements, such as brain monitoring and home sleep apnea testing services.

Bittium Faros™  
Bittium OmegaSnap™  
3-CH ECG Electrode



**Bittium BrainStatus™** is a wireless compact EEG amplifier, which is used together with a disposable, easy and quick-to-wear Bittium BrainStatus electrode headband, for example, to diagnose epileptic seizures and brain stroke. Bittium BrainStatus enables quick measurement in field conditions as well as in hospitals, thus making the treatment process of the patient faster. Bittium Brain Status can be used for wireless real-time remote EEG monitoring, or data can be recorded to the device memory.

**Bittium BrainStatus™ with Cerenion C-Trend®** is the world's first practical method for measuring the brain function of intensive care patients. Bittium BrainStatus measures and monitors the electrical activity in the brain, and with the help of Cerenion C-Trend analysis tool, the brain's state is displayed as a straight-forward and simple-to-interpret numeric value by making use of machine learning algorithms and artificial intelligence.

**Bittium NeurOne™** is one of the quickest and most accurate EEG measuring devices in the world designed for clinical and research use. Bittium NeurOne system enables fully synchronized group measuring of up to 30 persons simultaneously, for example, in different types of psychological studies. The solution is optimized for use with transcranial magnetic stimulators (TMS-EEG), with an optional possibility to use it during magnetic resonance imaging procedures (fMRI-EEG).

**Bittium Respiro™** is a modern home sleep apnea test and analysis solution for service providers, hospitals, clinics, and health centers. It is focused on Home Sleep Apnea Testing (HSAT) and intended to record standard PG level data and analyze typical sleep-related breathing disorders, such

as obstructive sleep apnea, central sleep apnea, mixed sleep apnea, hypopnea and Cheyne-Stokes breathing.

**Bittium Respiro Analyst™** software provides a web-based intuitive user interface which utilizes artificial intelligence to accelerate analysis work. The software pre-analyses the massive amount of measurement data and converts it to a more visual and informative format. This makes it easier and quicker for healthcare personnel to perform further analysis and diagnosis. Bittium MedicalSuite provides the same cloud backend system for all Bittium medical products and services, and enables fast and location-independent data analysis.

## Year 2023

A component shortage significantly slowed down the manufacturing and deliveries of medical technology products at the beginning of the year, and the production of Bittium Faros™ ECG devices was very limited for several months. In April-May, production volumes were increased, and the manufacturing of products continued with better capacity in May-June. The deliveries continued in the second quarter as planned, and the shortage of components eased towards the end of the year, as expected. In the second half of the year, the sales of medical technology devices outside of the US market developed slower than estimated. The development of sales is affected by the insurance policies related to treatment reimbursement, which vary between different countries affecting the development of remote diagnostics market. In addition, entering new markets is affected by obtaining the medical device regulatory approval

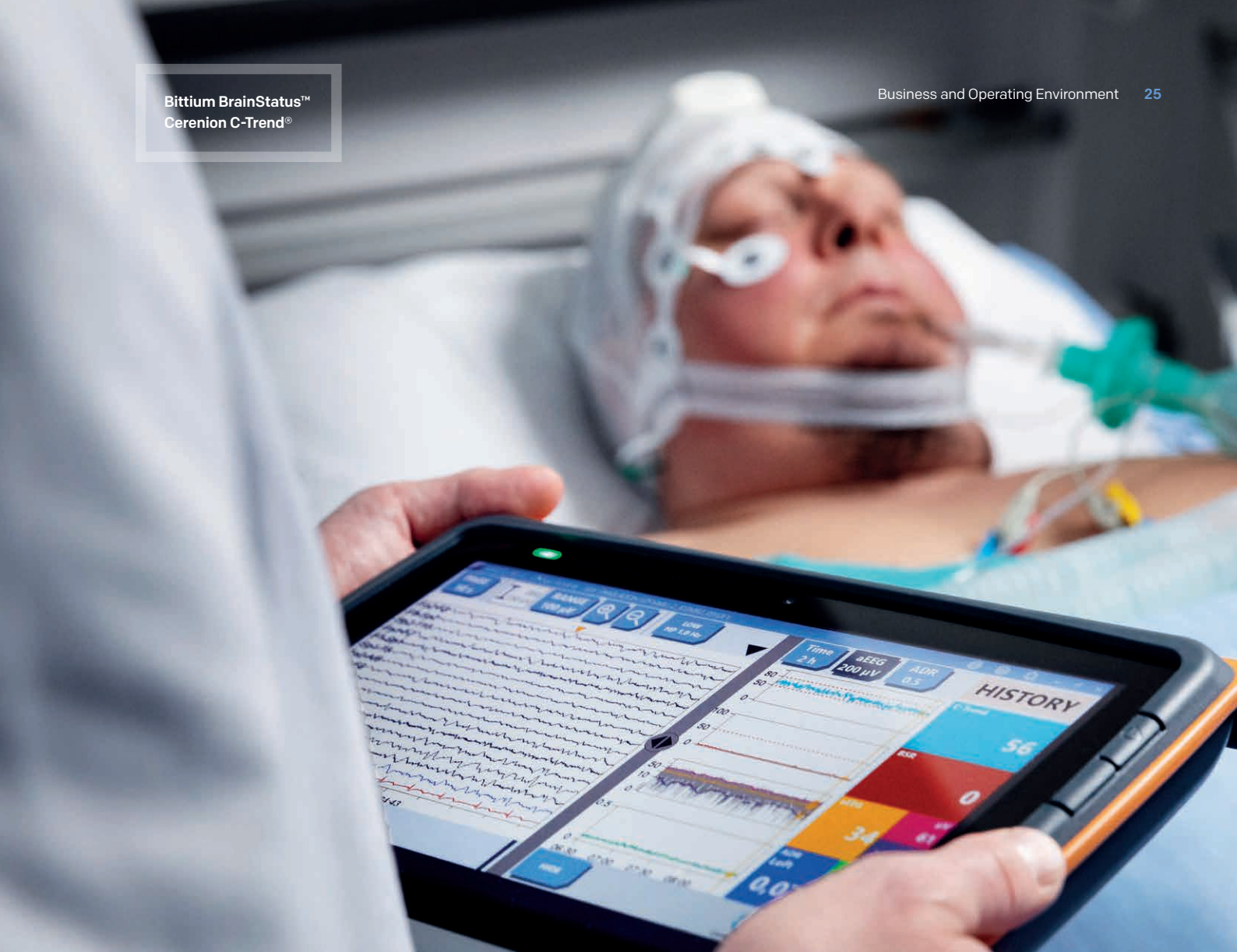
als, that may take up to more than a year depending on the approval.

Most product deliveries of Faros ECG devices were still made to the US customer Boston Scientific Cardiac Diagnostics (CDx) (previously known as Preventice). CDx is one of the leading providers of ECG measurement services in the US.

In the neurophysiology market, the piloting of Bittium BrainStatus™ EEG measuring devices in intensive care units continued in Finland and abroad. The change in recommendations for intensive care regarding EEG measurement is expected to have a positive effect on the demand for BrainStatus.

Product deliveries of the home sleep apnea test and measurement solution Bittium Respiro™ continued in Europe, and the feedback from our customers' clinical trials has been positive. Respiro's sales are expected to strengthen during the current year and form one significant growth driver in the Medical Business Segment in the future. In November, Bittium and ResMed started a collaboration regarding the distribution of Bittium Respiro to hospitals and treatment centers. The signed distributor agreement concerns the Bittium Respiro™ measuring device and its accessories as well as the Bittium Respiro Analyst™ analysis software and service platform, giving ResMed the right to resell them. The agreement does not include exclusive rights and it covers the right to resell the solution in Great Britain, Ireland, Switzerland, Finland, Norway, and Sweden. ResMed is a leading provider of cloud-based medical devices whose solutions are transforming the care of people with sleep apnea, COPD, and other chronic respiratory diseases.





Bittium is applying for a sales license for Respiro for the US market from the Food and Drug Administration (FDA). The current estimate of the amount of work and the time needed for it is at least one year. The requirements of the FDA authority have grown and become stricter in recent years. The overall duration of the sales license process is affected by the authority's further interpretation of possible additional material needs.

Bittium is undergoing regulatory approval processes for its medical devices in several different countries. As necessary, the company will apply for a new European medical device approval (MDR) for its medical technology products already in production, which are approved according to the current standard (MDD). Decisions on applying for MDR approvals for existing products will be made on a business basis or if significant changes are made to the products that require a new approval process.

## Market Outlook

### Medical ECG, EEG, and Sleep Apnea Remote Monitoring Market

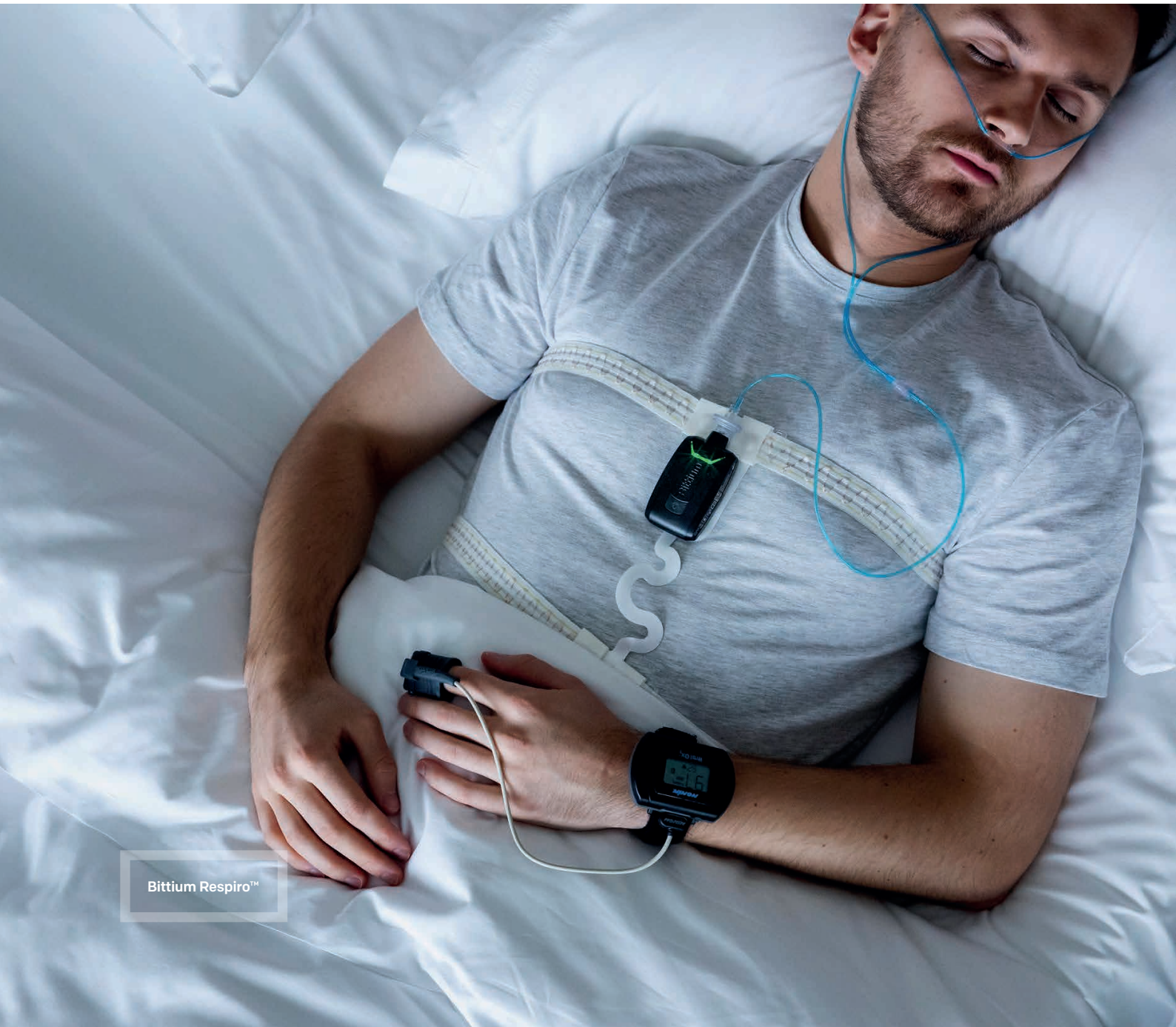
The medical technology market is undergoing significant development in patient care, especially outside hospitals. There is an increasing focus on the prevention of diseases and health problems through early diagnosis and the discharge of patients at an earlier stage to reduce hospital and treatment 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 measuring biosignals, as well as remote monitoring and diagnostics, Bittium provides its Bittium Faros™ product family for remote ECG monitoring, Bittium BrainStatus™ for measuring the electrical activity of the brain, home sleep apnea test solution Bittium Respiro™, and different kinds of diagnostics software offered by Bittium.

Regulation by the authorities has a strong role in bringing medical devices to the market. The requirements vary for different countries and the processes are long-term. Bittium has several regulatory approvals for its medical devices in progress in different countries. The company has achieved medical device approval of the new MDR standard level in the EU region for the Bittium Respiro™ product family that measures sleep apnea. Bittium has also applied for a medical device sales license for the Respiro product family from the US Food and Drug Administration (FDA). The schedule is affected by additional clinical studies determined by the FDA authority. The estimated duration of the additional work is at least one year.



Bittium Respiro™

# Shares and Shareholders

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# Shares and Shareholders



## Shares

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 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 shares was 35,702,264. The accounting par value of the Company's share is EUR 0.10.

## Share Buy-Back Program

The Board of Directors of Bittium Corporation has decided on May 17, 2023, to launch a share buy-back program concerning Bittium's own shares based on the authorization to repurchase own shares granted by the Annual General Meeting held on April 12, 2023.

Acquisitions of own shares started on May 19, 2023, and ended on October 3, 2023. The repurchases of the own shares began on May 19, 2023, and ended on October 3, 2023. During that period, Bittium repurchased 240,000 of its own shares for the total value of EUR 980,112.00 and an average price per share EUR 4.0838. The shares were acquired at the market price quoted at the time of acquisition in trading organized by Nasdaq Helsinki Ltd on a regulated market.

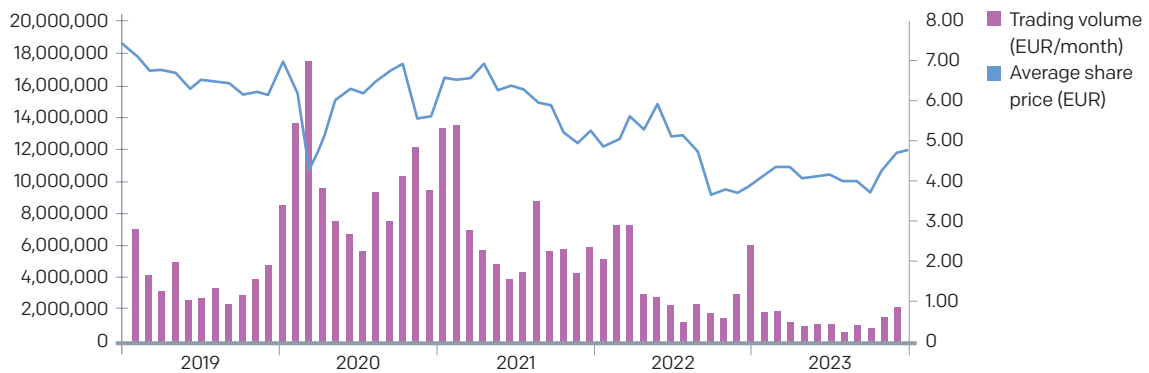
The shares acquired through the buy-back program are intended to be used for meeting obligations arising from share-based rewards to the Company's management under the Company's current and possible future incentive arrangements.

On December 31, 2023, Bittium held 216,146 treasury shares, which corresponds to around 0.61 percent of all the shares in the Company.

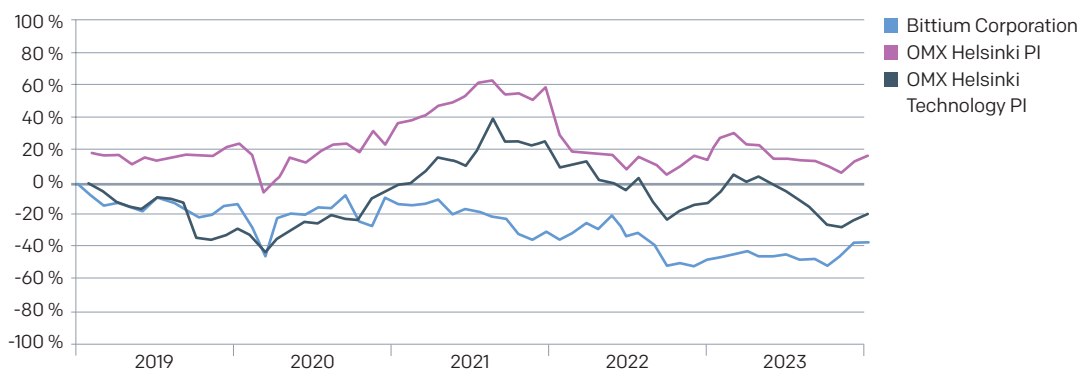
## Share Price and Share Trading in 2023

The closing price of Bittium Corporation's share was EUR 4.81 at the end of 2023; the share reached a high of EUR 5.20 and a low of EUR 3.31. During the year, a total of 4.0 million shares with the value of EUR 17.0 million changed hands on the Nasdaq Helsinki

Trading Volume and Average Share Price 2019–2023



Share Price Development in Nasdaq Helsinki 2019–2023



ki. This is 11.3 percent of the share capital. Bittium Corporation's market capitalization on December 31, 2023, was EUR 170.7 million.

## Dividend and Dividend Policy

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

### Dividend from 2022

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, 2022, a dividend of EUR 0.05 per share will be distributed. The dividend was paid to shareholders who on the dividend record date of April 14, 2023, were registered in the company's shareholders' register held by Euroclear Finland Oy. The dividend was paid on April 21, 2023. 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.

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

On December 31, 2023, the parent company's distributable funds were EUR 116,314,733.29, of which the profit for the financial year is EUR 880,995.75. The Board of Directors proposes to the Annual General Meeting to be held on April 10, 2024, that a dividend of EUR 0.03 per share be paid based on the balance sheet to be adopted for the financial year ended December 31, 2023. The dividend will be paid to a shareholder who, on the record date for the dividend payment, on April 12, 2024, is registered in the shareholders' register maintained by Euroclear Finland Ltd. The Board of Directors proposes that the dividend payment date be April 19, 2024.

The Board of Directors furthermore proposes that the Annual General Meeting would authorize the Board of Directors to decide, at its discretion, on the payment of an ex-

traordinary dividend of EUR 0.03 per share, by October 31, 2024. The Board of Directors expects that this discretionary extraordinary dividend will be paid, unless there is a significant deterioration in the business environment during 2024. The company will publish any possible decisions on dividend payment by the Board of Directors separately, and simultaneously confirm the dividend record and payment dates.

## Trading Codes

Bittium Corporation has been listed on Nasdaq Helsinki since 1998. Bittium Corporation's company code and trading code in the Nasdaq Helsinki INET system is BITTI and the trading code BITTI.

### Trading codes are:

Nasdaq Helsinki Oy	BITTI
Reuters	BITTI.HE
Bloomberg	BITTIFH

## Shareholders

At the end of 2023, Bittium Corporation had 22,030 shareholders. The ten largest shareholders owned 29.6 percent of the shares. Private ownership was 69.6 percent. The percentage of foreign and nominee-registered shareholders was 4.0 percent.

### Shareholding of the Board of Directors and the CEO

At the end of 2023, the shareholding of the Board of Directors, CEO and the companies controlled by them was 1,956,322 shares, corresponding to 5.5 percent of all shares.

## Information to Shareholders

Press releases, reports, earnings estimates, share price ticker, contact details of analysts and other current investor material are available on the Company's website at [www.bittium.com/investors](http://www.bittium.com/investors). An email-based subscription service for press releases and publications can be found on the Company's website as well.

## Financial Reports in 2024

Bittium Corporation will publish financial reports for half a year and the entire financial year and business reviews for the reporting periods January–March and January–September. The structure of the business reviews is lighter than the structure of financial reports. The reports are published both in Finnish and in English at the company website [www.bittium.com/investors](http://www.bittium.com/investors).

### In 2024 the Financial Reports are published as follows:

- Financial Statement Bulletin 2023: February 9, 2024, at 8.00 am (CET+1)
- Half Year Financial Report January–June 2024: August 9, 2024, at 8.00 am (CEST+1)

### In 2024 the Business Reviews are published as follows:

- Business Review January–March 2024: April 26, 2024, at 8.00 am (CET+1)
- Business Review January–September 2024: October 18, 2024, at 8.00 am (CET+1)

## Silent Period

Bittium Corporation observes a three week silent period prior to announcing its financial reports. In 2024, the silent periods are as follows:

- January 19–February 9, 2024
- April 5–April 26, 2024
- July 19–August 9, 2024
- September 27–October 18, 2024

## Bittium Corporation's Annual General Meeting 2024

Notice is given to the shareholders of Bittium Corporation to the Annual General Meeting to be held on Wednesday, April 10, 2024, at 1:00 p.m. at the University of Oulu, at the address Saalastinsali, Pentti Kaiteran katu 1, 90570 Oulu. The reception of persons who have registered for the meeting and the distribution of voting tickets will commence at 12:30 p.m.

Shareholders may also exercise their right to vote by voting in advance. Instructions for advance voting are presented in Section C of this notice to the Annual General Meeting.

### Instructions for the Participants in the Annual General Meeting

#### 1. Shareholders registered in the shareholders' register

A shareholder who is registered in the shareholders' register of the company maintained by Euroclear Finland Ltd on the record date of the Annual General Meeting, March 27, 2024, has the right to participate in the Annual General Meeting. A shareholder, whose shares are registered on their personal Finnish book-entry account or equity savings account, is registered in the shareholders' register of the company.

Registration for the Annual General Meeting will begin on February 19, 2024 at 10:00 a.m. A shareholder registered in the shareholders' register of the company who wishes to participate in the Annual General Meeting must register no later than by April 4, 2024 at 4:00 p.m. The registration must be received before the end of the registration period.

Registration for the Annual General Meeting can be made:

**a) on the company's website at [www.bittium.com/agm](http://www.bittium.com/agm)**, beginning from 10:00 a.m. on February 19, 2024;

For natural persons the electronic registration requires strong electronic authentication. When a shareholder logs in to the service through the company's website, he or she is directed to an electronic authentication

page. Electronic authentication works with online banking credentials or a mobile certificate.

For shareholders that are legal entities, the electronic registration does not require strong electronic authentication. However, the shareholder is required to provide the number of its Finnish book-entry account, its business ID or corporate identification number and other required information. If a shareholder that is a legal entity uses the electronic Suomi.fi authorization described in section C.3 below, registration requires strong electronic authentication from the authorized person, which works with personal online banking credentials or a mobile certificate.

**b) by phone** to +358 40 344 3322 on weekdays between 9:00 a.m. and 3:00 p.m.; or

**c) by e-mail** to [yhtiokokous@bittium.com](mailto:yhtiokokous@bittium.com).

In connection with the registration, a shareholder shall notify their name, date of birth/personal identification number or business ID, address, telephone number and e-mail address, as well as the name of a possible assistant, legal representative or proxy representative and the date of birth/personal identification number of the legal representative or proxy representative. The personal data given by shareholders to Bittium Corporation or Euroclear Finland Oy is used only in connection with the Annual General Meeting and for processing of related necessary registrations.

A shareholder, their legal representative or proxy representative shall, if necessary, be able to prove their identity and/or right of representation at the meeting venue.

#### 2. Holders of nominee-registered shares

A holder of nominee registered shares has the right to participate in the Annual General Meeting by virtue of such shares on the basis of which he or she would be entitled to be registered in the shareholders' register maintained by Euroclear Finland Ltd on March 27, 2024. The right to participate requires, in addition, that the shareholder has been temporarily registered in the share-

holders' register maintained by Euroclear Finland Ltd on the basis of these shares no later than on April 5, 2024, by 10:00 a.m. (Finnish time). As regards nominee-registered shares, this constitutes due registration for the Annual General Meeting.

A holder of nominee registered shares is advised to request without delay necessary instructions regarding the registration in the temporary shareholders' register of the company, the issuing of proxy documents and voting instructions and registration for the Annual General Meeting from their custodian bank. The account management organization of the custodian bank has to register a holder of nominee registered shares, that wants to participate in the Annual General Meeting, into the temporary shareholders' register of the company at the latest by the time stated above and, if necessary, arrange advance voting on behalf of a nominee-registered shareholder before the end of the registration period for nominee-registered shareholders.

Further information on the Annual General Meeting and participation in it is available on the company's website at [www.bittium.com/agm](http://www.bittium.com/agm).

#### 3. Proxy representative and powers of attorney

A shareholder may participate in the Annual General Meeting and exercise their rights at the meeting by way of proxy representation. A proxy representative of a shareholder may also, if they so wish, vote in advance in accordance with the instructions given in this notice. A proxy representative shall produce a dated proxy document or otherwise in a reliable manner demonstrate their right to represent the shareholder at the General Meeting. If a shareholder participates in the Annual General Meeting by means of several proxy representatives representing the shareholder with shares at different securities accounts, the shares by which each proxy representative represents the shareholder shall be identified in connection with the registration for the Annual General Meeting.

Possible proxy documents should be delivered by mail to the address Bittium Corporation, Annual General Meeting, Ritaharjuntie 1, 90590 Oulu, Finland, or by e-mail to [yhtiokokous@bittium.com](mailto:yhtiokokous@bittium.com) before the last date for registration. The proxy document may also be required to be presented at the General Meeting.

Shareholders that are legal entities can also use the electronic Suomi.fi authorization service to authorize their representative. In this case, the shareholder authorizes the proxy representative it has appointed in the Suomi.fi service at [www.suomi.fi/e-authorizations](http://www.suomi.fi/e-authorizations) using the authorization item "Representation at the General Meeting". The proxy representative must identify themselves with strong electronic authentication when registering in the General Meeting service, and after that the electronic authorization is automatically verified. Strong electronic identification works with Finnish online banking credentials or a Finnish mobile certificate. More information is available at [www.suomi.fi/e-authorizations](http://www.suomi.fi/e-authorizations).

#### 4. Advance voting

Shareholders who have a Finnish book-entry account or equity savings account may vote in advance between February 19, 2024 10:00 a.m. (CET +1) and April 4, 2024 4:00 p.m. (CEST +1) on certain items on the agenda of the Annual General Meeting.

For nominee-registered shareholders, advance voting takes place through the account manager of the custodian bank. The account manager may vote in advance on behalf of the nominee-registered shareholders it represents in accordance with their voting instructions during the registration period set for holders of nominee-registered shares.

A shareholder who has voted in advance may exercise their right to request information under the Finnish Limited Liability Companies Act, request a vote at the Annual General Meeting or vote on a possible counterproposal only if they are present at the Annual General Meeting in person or by proxy representation.

Advance voting can take place in the following ways:

#### a) on the company's website at [www.bittium.com/agm](http://www.bittium.com/agm)

For natural persons, electronic advance voting requires strong electronic authentication. A shareholder can register and vote in advance by logging in with their own Finnish online banking credentials or a mobile certificate.

For shareholders that are legal entities, electronic advance voting does not require strong electronic authentication. However, the shareholder shall provide the number of its Finnish book-entry account and other information required. If a shareholder that is a legal entity uses the electronic Suomi.fi authorization service further described above, the registration requires strong electronic authentication, which works with personal Finnish online banking credentials or a mobile certificate.

#### b) by e-mail or mail;

A shareholder may submit the advance voting form available on the company's website or corresponding information to Euroclear Finland Oy by e-mail to [yhtiokokous@euroclear.com](mailto:yhtiokokous@euroclear.com), or by mail to Euroclear Finland Oy, Yhtiökokous / Bittium Corporation, P.O. Box 1110, FI-00101 Helsinki, Finland. The advance voting form will be available on the company's website no later than at 10:00 a.m. on 19 February 2024.

When submitting the advance voting form, the statutory representative or authorized proxy representative of a shareholder shall produce a dated proxy document or otherwise in a reliable manner demonstrate their right to represent the shareholder at the General Meeting.

If a shareholder participates in the Annual General Meeting by voting in advance, the submission of votes before the end of the registration and advance voting period constitutes due registration for the Annual General Meeting, provided that the above-mentioned information required for registration is provided. Advance votes must be received by the end of registration and advance voting.

A proposal that is subject to advance voting shall be deemed to have been presented without amendments at the General Meeting.

Instructions on electronic advance voting are also available on the company's website at [www.bittium.com/agm](http://www.bittium.com/agm) from 10:00 a.m. on February 19, 2024 at the latest.

#### 5. Other information

The language of the Annual General Meeting is Finnish. Pursuant to Chapter 5, Section 25 of the Finnish Limited Liability Companies Act, a shareholder who is present at the Annual General Meeting has the right to request information on the matters to be considered at the meeting.

Changes in shareholdings after the record date of the Annual General Meeting do not affect the right to participate in the Annual General Meeting or the number of votes of the shareholder at the General Meeting.

On the date of this notice, Bittium Corporation has a total of 35,702,264 shares and votes. On the date of this notice, the company holds 216,146 treasury shares that do not entitle to participation in the General Meeting.

The information concerning the Annual General Meeting required under the Finnish Limited Liability Companies Act and the Securities Markets Act is available on the company's website at [www.bittium.com/agm](http://www.bittium.com/agm).

#### Documents of the Annual General Meeting

The resolution proposals for the matters on the agenda of the Annual General Meeting as well as this notice are available on Bittium Corporation's website at [www.bittium.com/agm](http://www.bittium.com/agm).

Bittium Corporation's Remuneration Report and Annual Report, which includes the Company's Financial Statements, the Report of the Board of Directors and the Auditor's Report as well as the Corporate Governance Statement, are available on the above-mentioned website no later than on March 20, 2024. The resolution proposals and the other documents will also be available at the Annual General Meeting. The minutes of the Annual General Meeting will be available on the above-mentioned website no later than on April 24, 2024.



# Corporate Governance Statement Reporting Period Jan. 1–Dec. 31, 2023

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# Corporate Governance



The governance of Bittium Corporation (hereinafter "Company") is determined by the Company's Articles of Association, the laws of Finland (such as the Finnish Limited Liability Companies Act and Securities Market Act) and the Company's Corporate Governance Code. The Company follows the Finnish Corporate Governance Code 2020 prepared by the Finnish Securities Market Association and entered into force on January 1, 2020. The Governance Code may be viewed, inter alia, at the Finnish Securities Market Association website at [www.cgfinland.fi](http://www.cgfinland.fi).

This Statement is made separately from the Report by the Board. The Board's Audit Committee and the Company's auditor have reviewed this Statement. The statutory governing bodies of the Company are the Shareholders' meeting, Board of Directors, Chief Executive Officer and the Auditor. The Management Group supports the statutory governing bodies of the Company. The Company's domicile is Oulu.

This Statement is publicly available on the Company's website at [www.bittium.com](http://www.bittium.com).

## The Board of Directors

The Board of Directors is responsible for the Company's governance and proper organization of the operations. The Board of Directors comprises of three to seven (3–7) members, and in addition it may have one to three (1–3) deputy members. The Annual General Meeting elects the members of the Board of Directors for a term which expires at the end of the following Annual General

Meeting. The number of terms for the members of the Board of Directors is not limited. The Board of Directors selects a Chairman among its members.

The Board conducts an annual evaluation of the independence of its members in accordance with the recommendation 10. A member of the Board is required to submit to the Company the information necessary to conduct the evaluation of independence. A Board member is also required to notify the Company of any changes in information relating to independence.

The Annual General Meeting held on April 12, 2023, 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 12, 2023, 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.

## Description of Activities

The Board of Directors has defined a working order and evaluates its performance annually. The Board of Directors shall imple-

ment the decisions of the General Meeting. The Board of Directors supervises the operations and management. The Board of Directors makes decisions on the Company's guiding principles for operation, strategy and budget. The Board of Directors decides on mergers and acquisitions and other strategic alliances as well as significant investments and significant matters regarding organization and finance. The Board of Directors supervises that the control of the Group companies' accounting and financial affairs is duly organized. The Board of Directors appoints the CEO and possible Deputy for him or her as well as approves the Company's organizational structure.

The CEO, CFO, CDO and CLO (who acts as secretary of the Board of Directors) attend the meetings of the Board of Directors. Other management attends the meetings when necessary or upon invitation by the Board of Directors. The Chairman of the Board approves the agendas of the meetings of the Board of Directors. The agendas are prepared by the CEO and the CLO.

An annual clock, according to which the regular subjects to be handled are determined, is applied in the Board's work. In addition to the regular subjects of the annual clock, the most important subjects of the Board during the year were the change of CEO, updating the strategy, lightening the cost structure and reforming the organization.

The Annual General Meeting decides on the compensation of the members of the Board of Directors and the compensations can be publicly reviewed on the Company's website at [www.bittium.com](http://www.bittium.com).

In 2023 the Board convened 15 times.

The Board members attended the meetings as follows:

January 1–December 31, 2023	Board	Audit committee
Erkki Veikkolainen	15/15	
Veli-Pekka Paloranta	14/15	6/6
Riitta Tiuraniemi	15/15	6/6
Pekka Kemppainen	15/15	
Petri Toljamo	14/15	6/6

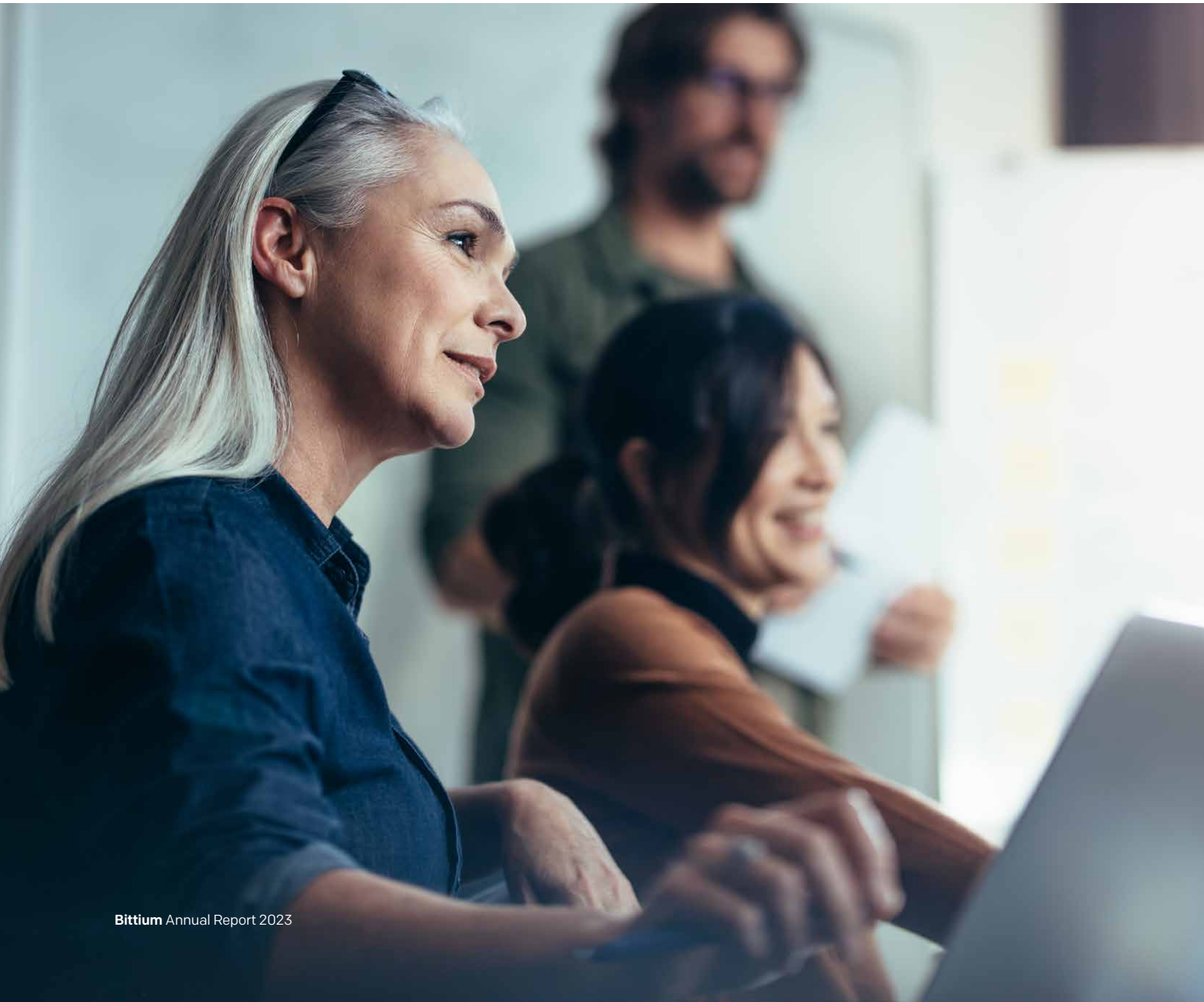
## Diversity Principles of the Board of Directors

In the Company, diversity is seen as an essential part of corporate responsibility and as a factor in success, that enables achievement of strategic targets and continuous improvement of customer intimacy.

In planning the composition of the Board of Directors, the requirements of the Company's business operations, the phases of

development and the competence requirements of the Board committees are taken into account. In appointing members of the Board, the target is to ensure that the Board as a whole supports the development of the Company's current and future business operations. Diversity plays a part in supporting this goal, so the Company aims to reach a situation where the facts supporting diversity are taken into account as significant criteria in planning the composition of the Board of Directors.

Diversity of the Board is considered from different perspectives. From the Company's point of view it is important to have Board members with diverse backgrounds in terms of competence, training, and experience of differing business operations, of varying stages of business development, and of leadership as well as diverse personal characteristics. Experience of international business environments and different cultures in addition to consideration of age and gender will support the diversity of the Board. The objective is that both genders are represented in the Board and the Company



aims to maintain a good and balanced distribution of genders.

To fulfill the diversity principles, the diversity principles are taken into account in the process to find and assess member candidates and representatives of both genders are looked for to the process. The status of diversity and progress of the goal mentioned above are monitored in the self-assessment discussions of the Board. A person elected as a Board member of the Company must have the competence required for the position and be able to devote a sufficient

amount of time for the duties required. In forming the composition of the Board long-term needs and successor planning will be taken into account.

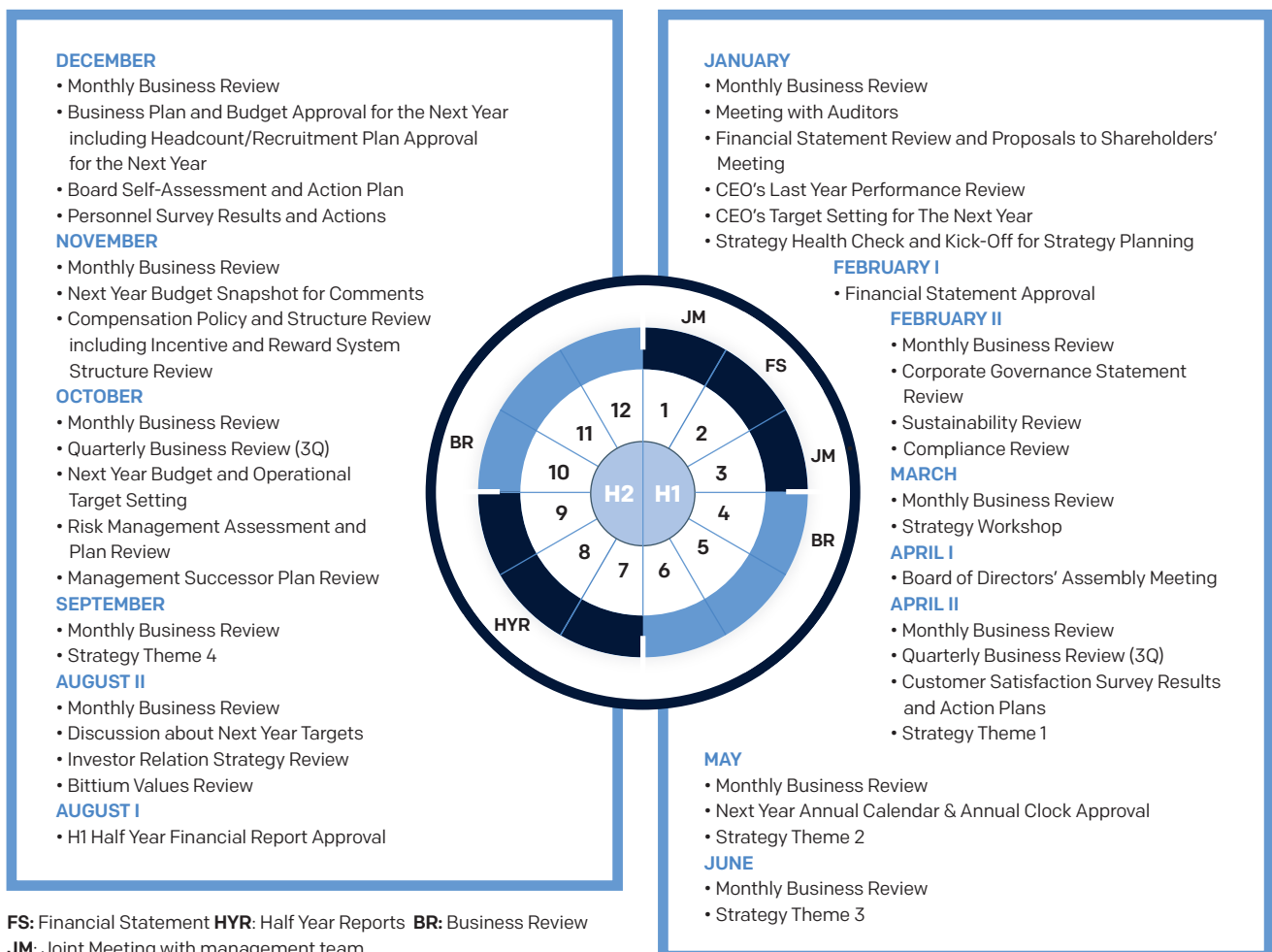
According to the Articles of Association of the Company, the Board of Directors comprises three to seven (3–7) members and in addition it may have one to three (1–3) deputy members. The composition of the Board and the number of members shall be such that they enable the Board to perform its duties efficiently. The members of the Board

are appointed annually at the Company’s Annual General Meeting.

During the financial period ending on December 31, 2023, the Board of Directors has comprised five members. Four of the members have been males and one female. The self-assessment discussions of the Board have concluded that the members of the Board are so different in their special skills, backgrounds and age and gender that the Board as a whole has therefore been able to effectively support the business of the Company and its development.

## Board of Directors’ Annual Clock 2023

Key topics covered during the year



# Bittium Corporation

## The Board of Directors



### Erkki Veikkolainen

b. 1952, M.Sc. (EE), eMBA  
Full-time occupation:  
Mevita Invest Oy, CEO

#### Positions of trust:

- Bittium Corporation (prev. Elektrobit Corporation), Member of the Board 2008–2015, Chairman of the Board 2015–.
- KoskiRent Ltd, Member of the Board 2020–.
- Lumous lighting Ltd, Member of the Board 2019–.
- Elcoflex (Suzhou) Co. Ltd, Member of the Board 2007–.
- Elcoflex Ltd, Member of the Board 2015–, Chairman of the Board 2006–2015.
- Maustaja Ltd, Member of the Board 2006–.

#### Previous work history:

- Bittium Technologies Ltd (prev. Elektrobit Technologies Ltd.), Member of the Board 2011–2015.
- Elektrobit Corporation, Executive Vice President, Contract R&D and Test Business Units 2002–2003.
- Elektrobit Technologies Ltd., Managing Director 2001–2003.
- Elektrobit Ltd., Vice President, Business Development 1998–2001.
- Nokia Mobile Phones, various positions 1985–1998, latest Vice President.

#### Holdings Dec. 31, 2023:

Holds 1,822,112 Bittium Corporation shares.

Independent as regards both the Company and its significant shareholders.



### Pekka Kempainen

b. 1954, Lic.Sc. (Tech.)  
Full-time occupation:  
Professional Board Member

#### Positions of trust:

- Bittium Corporation, Member of the Board 2019–.
- Valmet Corporation, Member of the Board 2018–.
- Junttan Ltd, Member of the Board 2018–.

#### Previous work history:

- Nestor Cables Ltd, Member of the Board, 2020, Chairman of the Board 2021–2022.
- KONE Corporation, Executive Vice President, Service business 2010–2017.
- KONE Corporation, Executive Vice President & Area Director Asia Pacific, 2004–2010.
- KONE Corporation, Senior Vice President, New Elevator and Escalator Business, 1999–2004.
- KONE Corporation, various positions 1984–1999, last R&D and Technology Director.

#### Holdings Dec. 31, 2023:

Holds 8,326 Bittium Corporation shares.

Independent as regards both the Company and its significant shareholders.



### Veli-Pekka Paloranta

b. 1972, M.Sc. (Econ.)  
Full-time occupation:  
Lehto Group Oyj, Chief Financial Officer

#### Positions of trust:

- Bittium Corporation, Member of the Board and Member of the Audit Committee 2020–.

#### Previous work history:

- Bittium Corporation (former Elektrobit Corporation), Chief Financial Officer, 2010–2015.
- Elektrobit Corporation, Director, Finance, 2008–2010.
- JOT Automation Ltd, Chief Financial Officer, 2007–2008.
- Elektrobit Group Corporation, Business Controller, 2000–2007.

#### Holdings Dec. 31, 2023:

Holds 8,562 Bittium Corporation shares.

Independent as regards both the Company and its significant shareholders.



### Riitta Tiuraniemi

b. 1962, M.Sc, Electrical Engineering  
Full-time occupation:  
Professional Board Member

#### Positions of trust:

- Bittium Corporation, Member of the Board 2018–, Member of the Audit Committee 2018–2020, Chairman of the Audit Committee 2020–.
- Skoggi Ltd, Member of the Board 2022–.
- Gratis Finland Ltd, Founder and Chairman of the Board 2022–.
- Wamma Consultants Ltd, Founder and Member of the Board 2021–.

#### Previous work history:

- Skoggi Ltd, Operational Director, Founder and Chairman of the Board 2019–2022.
- HealthOperator Ltd., CEO, Founder and Member of the Board 2014–2019.
- DNA Ltd, CEO 2009–2013.
- DNA Finland Ltd, CEO 2005–2008.
- DNA Networks Ltd, CEO 2004–2005.
- DNA Networks Ltd, CTO, Member of Management Group 1999–2005.
- Omnitele Oy, Department Head, Mobile Communications Consultancy, Member of Management Group 1990–1999.
- Technology Development Centre, TEKES Finland, Senior Technical Adviser, Information Technology 1996–1997.
- Nokia Telecommunications, System Designer, Chief System Designer 1986–1990.

#### Holdings Dec. 31, 2023:

Holds 19,292 Bittium Corporation shares.

Independent as regards both the Company and its significant shareholders.



### Petri Toljamo

b. 1974, M.Sc, Radio Engineering, eMBA  
Full-time occupation:  
Professional Board Member

#### Positions of trust:

- Bittium Corporation, Member of the Board, Member of the Audit Committee, 2021–.
- Bittium Corporation, Member of the Board, 2018–2020.
- Greowave Oy, Chairman of the Board, 2023–.
- HT Growth Partners Oy, Founder, CEO, and Chairman of the Board, 2022–.
- Moontalk Oy, Member of the Board, 2020–2021, Chairman of the Board 2021–.
- Manea Capital Oy, Chairman of the Board, 2016–2023, Member of the Board, 2023–.

#### Previous work history:

- Keysight Technologies Inc., NEMO Wireless-Network Testing, Vice President and Keysight Technologies Finland Oy, Managing Director and Chairman of the Board, 2017–2022.
- Anite Finland Oy, Managing Director and Anite Network Testing Business Unit, Managing Director, 2013–2017.
- Pulse Electronics, Mobile Division Director and Pulse Finland, Managing Director 2011–2013.
- Elektrobit Wireless Communications Ltd, Vice President, Device and Network Solutions Business Area, 2010.
- Elektrobit Wireless Communications Ltd, Vice President, Mobile Device Solutions Business Area, 2008–2009.
- Elektrobit Wireless Communications Ltd, Cellular Terminal Solutions Business Area, Director, 2007–2008.
- Elektrobit Wireless Communications Ltd, Platform R&D and Head of Terminal Programs, Director, 2005–2006.
- Elektrobit GmbH, Business Development, Director, 2004–2005.
- Elektrobit Ltd, various product development, project management and business positions, 1996–2004.

#### Holdings Dec. 31, 2023:

Holds 26,176 Bittium Corporation shares.

Independent as regards both the Company and its significant shareholders.

## The Board Committees

The proper function of the corporate governance of a company requires that Board work is organized as efficiently as possible. For this reason, the Company has established an Audit Committee.

The Directors on the Committee can concentrate on the matters delegated to the Committee more extensively than the entire Board of Directors. The purpose of the Committee is to enhance the efficient preparation of matters within the competence of the Board, increase transparency and ensure the quality and efficiency of the decision-making of the Board.

The Committee assists the Board by preparing matters falling within the competence of the Board. The Board remains responsible for the duties assigned to the Committee. The Committee has no autonomous decision-making power, and thus the Board makes the decisions within its competence collectively.

The Committee shall regularly report on its work to the Board. The reports shall include at least a summary of the matters, addresses and measures taken by the Committee.

The central duties and operating principles of the Audit Committee are described in the next chapter. The Annual General Meeting decides on the compensation of the members of the Board Committee and such compensations can be publicly viewed on the Company's website at [www.bittium.com](http://www.bittium.com)

## Audit Committee

The Audit Committee has the following duties:

- to monitor and assess the reporting process of financial statements;
- to monitor and assess the financing reporting system;
- to supervise the financial reporting process and risk management process;
- to monitor and assess the efficiency of the Company's internal control, internal audit, if applicable, and risk management systems;
- to monitor and assess how agreements and other legal acts between the Company and its related parties meet the requirements of the ordinary course of business and arm's-length terms;
- to handle the Company's corporate governance statement and nonfinancial report;
- to monitor the Company's auditing;
- to monitor and evaluate the independence of the auditor and, in particular, the offering of services other than auditing services by the auditor; and
- to prepare the appointment of the Company's auditor.

The Chairman and the members of the Audit Committee are appointed by the Board of Directors of the Company. At least one member of the audit committee must have expertise in accounting or auditing. The Board of Directors elected in the Annual General Meeting held on April 12, 2023 decided in its assembly meeting held on the same day to elect Ms. Riitta Tiuraniemi (Chairman of the Committee), Mr. Petri Toljamo and Mr. Veli-Pekka Paloranta as members of the Audit Committee. All members of the Committee are independent from immediate interest of both the Company and its significant shareholders and they have long term experience in business management.

In addition to Committee members, other regular participants to the Committee meetings are CEO, CFO and CLO who acts as the Committee's secretary and optionally auditors. Further, the Committee members may meet the auditors without the operative management being present in such meetings. In 2023, the Audit Committee convened 6 times. The Committee has evaluated, prepared and reviewed, inter alia, the following subject matters during the financial period of January 1, 2023–December 31, 2023:

- Financial Statements of 2022;
- Business Reviews and Half Year Financial Reports of 2023;
- Annual audit plan for 2023;
- Observations based on auditing during the financial period;
- Preparing the appointment of the Company's auditor;
- Observations by the internal control;
- Cash flow monitoring and evaluation of sufficiency of financing;
- M&A related issues and their effects on the result, balance sheet and financing status of the Group;
- Group legal structure related questions; and
- Impairment testing of the subsidiary shares and goodwill.

During 2024 the Committee's focus areas are:

- Near future changes in sustainability reporting;
- Cashflow forecasting process; and
- Development of working capital.

## Chief Executive Officer (CEO)

The CEO is in charge of the operative management of the Company in accordance with the Finnish Limited Liability Companies Act, the Articles of Association as well as the instructions and orders given by the Board of Directors. The CEO is responsible for the preparation of the Board meetings and implementation of any decisions made therein. Further, the CEO is responsible for ensuring that the Company's accounting methods comply with the applicable law and that the financial matters are being handled in a reliable manner. The CEO prepares strategy, long-term planning, investments, mergers and acquisitions, financing and makes decisions thereof to the extent that such decisions are not tasks of the Board of the Directors. The CEO is responsible for financial planning, the Group's communications and investor relations.

Lic.Sc. (Econ.), M.Sc (Tech.) Johan Westermarck is the Company's CEO. He has served the Company since April 1, 2023.

The Board of Directors defines and approves the essential terms of the service of the CEO, including the CEO's remuneration, in the form of a written agreement. The CEO's service contract is effective until further notice and can be terminated by the Company with twelve (12) and by the CEO with six (6) months' written notice.

The pension security of CEO is statutory, and he does not have supplementary pension. According to the pension legislation, the lowest limit of the pension age for CEO is 65 years and 1 month at the moment.





## Johan Westermarck

Chief Executive Officer, 2023–.  
b. 1965, Lic.Sc. (Econ), M.Sc. (Eng).

### Positions of trust:

- Consti Oyj,  
Member of the Board, 2020–.

### Previous work history:

- Citec Group Oy Ab,  
CEO, 2017–2022.
- Maintpartner Group Oy,  
CEO, 2012–2017.
- Maintpartner Oy,  
CEO, 2010–2012.
- Maintpartner Ab,  
CEO, 2009–2010.
- Eltel Group Oy,  
VP, Business Development,  
2007–2008.
- Eltel Networks GmbH,  
CEO, 2006–2007.
- Eltel Group Oy,  
VP, Business Development,  
2004–2006.
- Elcoteq Oyj,  
VP, Sales and Marketing,  
2001–2004.
- Ahlstrom Machinery Oy:  
Regional Director, Service Business  
1997–2001,  
Manager, Marketing Development  
1995–1997,  
Project Engineer,  
1992–1995.

### Holdings Dec. 31, 2023:

Holds 71,854 shares in  
Bittium Corporation.

## Management Group

The management group supports the CEO in his tasks and consists of the CEO as the chairman, CFO, CLO, CDO (since June 1, 2023), Vice President, Communications and Sustainability, and Vice Presidents responsible for Business Segments. Until May 31, 2023, the management group also included Vice President responsible for Engineering.

The management group supports the CEO in operative management, implementation and follow-up of the CEO's competence area, in particular as regards the operative business, the management and development of the business portfolio, asset management and taxation, internal audit, Corporate Governance of the Company, investor and marketing communications, sustainability and risk management.



### Antti Keränen

Chief Financial Officer, 2023–.  
b. 1979, M.Sc. (Econ.)

**Previous work history:**

- Sentica Partners Oy, Investment Director, 2014–2023.
- Sentica Partners Oy, Investment Manager, 2010–2014.
- Sentica Partners Oy, Analyst 2008–2009.
- Kaupthing Bank h.f, Finnish Branch, Corporate Finance Associate, 2007–2008.
- Kaupthing Bank h.f, Finnish Branch, Corporate Finance Analyst, 2005–2007.

**Holdings Dec. 31, 2023:**

Corporation controlled by Keränen holds 1,500 Bittium Corporation shares.



## Kari Jokela

Chief Legal Officer, 2014–.  
b. 1969, LL.M., trained on the bench,  
Mag.lur. (Saarbrücken), M.Sc. (Econ.)

### Previous work history:

- Elektrobit Technologies Ltd., Senior Legal Counsel, 2012–2014.
- Elektrobit Corporation, Senior Legal Counsel, 2010–2012.
- Elektrobit Automotive GmbH, Senior Legal Counsel, 2008–2010.
- Elektrobit Corporation, Senior Legal Counsel, 2008.
- Polar Electro Ltd., Group Legal Counsel, 2000–2007.
- Asianajotoimisto Gilbert, Segall and Young Oy, Attorneys at Law Helsinki, attorney, 1998–2000.

### Holdings Dec. 31, 2023:

Holds 2,420 Bittium Corporation shares.



## Karoliina Malmi

Vice President, Communications  
and Sustainability, 2023–.  
b. 1977, M.A. International Business  
Communications

### Previous work history:

- Bittium Corporation, Vice President, Communications & Marketing, 2015–2023.
- Elektrobit Corporation, Corporate Communications Manager, 2015.
- Elektrobit Automotive GmbH, Corporate Communications Manager, 2013–2015.
- Elektrobit Corporation, Corporate Communications Manager, 2009–2013.
- Elektrobit Corporation, Internal Communications, 2006–2008.
- Elektrobit Group Plc, Communications, 2002–2006.
- JOT Automation Group Plc, Investor Relations and Communications, 2001–2002.

### Holdings Dec. 31, 2023:

Holds 2,920 Bittium Corporation shares.



## Laura Kauppinen

Chief Development Officer, 2023–.  
b. 1971, PhD. Psychology

### Positions of Trust:

- Endev, Member of the Board, 2022–.

### Previous work history:

- Citec Group, Chief Development Officer, 2020–2023.
- Citec Group, VP, Corporate & Business Development and Administration, 2019–2020.
- Maintpartner Group, Executive Vice President, Corporate Development and Administration 2017–2019.
- Maintpartner Group, Executive Vice President, Corporate Development, 2014–2017.
- Maintpartner Group, Vice President, Corporate Development, 2012–2014.
- Maintpartner Group, Head of Corporate Development, 2009–2012.
- Eltel, Vice president, HR & Communications, 2008–2009.
- Eltel, Vice president, HR, 2004–2009.
- IBM, Consultant, 2003–2004.
- PwC Consulting Finland, Consultant, 2001–2002.

### Holdings Dec. 31, 2023:

Holds 500 Bittium Corporation shares.



### Tommi Kangas

Senior Vice President, Defense & Security, 2023–. b. 1971, Master of Engineering, Machine Automation

**Previous work history:**

- Bittium Corporation, Senior Vice President, Connectivity Solutions, 2019–2023.
- Bittium Wireless Ltd, Sales Director, Connectivity Solutions Product and Service Area and Sales, 2015–2019.
- Elektrobit Wireless Communications Ltd, Senior Account Manager, Wireless Solutions Business Segment, 2010–2014.
- Elektrobit Wireless Communications Ltd, Key Account and Business Line Manager, Mobile Infra Solutions Business Area, 2009–2010.
- Elektrobit Wireless Communications Ltd, Business Line Manager, Radio Network Solutions Business Unit, 2006–2008.
- Elektrobit Ltd, Project Manager, Radio Network base station project, 2004–2005.
- Elektrobit Ltd, Mechanical Chief Designer and Specialist, 2000–2004.
- Elektrobit Ltd, Mechanical Designer, 1998–2000.

**Holdings Dec. 31, 2023:**

Holds 2,741 Bittium Corporation shares.



### Antti Näykki

Senior Vice President, Medical, 2022–. b. 1976, B.Eng. Embedded Systems

**Previous work history:**

- Bittium Corporation, Director, Medical Product Management, 2020–2022.
- Bittium Corporation, Director, Corporate Business Development, 2019–2020.
- Jutel Oy, Chief Executive Officer, 2015–2019.
- Polystar AB, Director of Sales, 2012–2013.
- EXFO Inc., Director of Sales EMEA, Wireless, 2010–2013.
- EXFO Inc./NetHawk Oyj, Global Key Account Manager, 2007–2010.
- NetHawk Oyj, Area Sales Manager MEA, 2004–2007.
- NetHawk Oyj, Technical Support, 2002–2003.

**Holdings Dec. 31, 2023:**

Does not hold any shares in Bittium Corporation.



### Jari Inget

Vice President, Engineering Services, 2023–. b. 1976, MSc., Electrical Engineering

**Previous work history:**

- Bittium Wireless Ltd, Director, Delivery, Connectivity Solutions Product and Service Area, 2016–2023.
- Bittium Wireless Ltd, Product Manager, IoT Solutions Product and Service Area, 2015–2016.
- Elektrobit Wireless Communications Ltd, Senior Project Manager, Wireless Business Segment, 2007–2015.
- Elektrobit Ltd, Technology Manager, HW (cellular) platforms, 2004–2006.
- Elektrobit Ltd, RF Designer and RF Chief Engineer, 1999–2003.

**Holdings Dec. 31, 2023:**

Does not hold any shares in Bittium Corporation.

## Election and Remuneration of the Auditor

The Company shall have one (1) auditor that has qualified as Certified Public Accountant and if the auditor is not an auditing company as defined by the law, one (1) deputy auditor shall be elected. The term of office of the auditor expires at the end of the following Annual General Meeting.

The General Meeting 2023 re-elected Ernst & Young Oy as auditor of the Company for a term of office ending at the end of the next Annual General Meeting. Mr. Jari Karppinen, APA, has been acting as responsible auditor. It was decided that the remuneration to the auditor shall be paid against the auditor's reasonable invoice.

The auditor's fees in 2023 amounted to EUR 111,000 (EUR 102,000 in 2022). Of the aggregate fees, EUR 87,000 was attributable to auditing (EUR 91,000 in 2022), EUR 10,000 to tax advice (EUR 7,000 in 2022) and EUR 14,000 to other services (EUR 4,000 in 2022).

## Main Features of Internal Control and Risk Management Processes Related to Financial Reporting Processes

### Risk Management

The purpose of risk management is to secure positive development of earnings of the Company and the continuation of the business by implementing risk management cost-effectively and systematically throughout the different Business Segments and Enabling Functions.

Risk management is part of the Company's strategic and operative planning, daily de-

cision-making process and internal control system. Business objectives, risks and risk management operations are combined through risk management as one chain of events.

### Main Principles of Organizing Risk Management

Company adheres to the risk management policy approved by the Board.

Risk management contains all actions, which are connected to setting up targets, identification of risks, measurement, review, handling, reporting, follow-up, monitoring and reacting to risks.

#### The Aim of Risk Management of the Company is to:

- systematically and thoroughly identify and assess all major risks, which threaten the achievement of objectives, including risks related to business operations, property, agreements, competence, security, currencies, financing and strategy;
- optimize business opportunities and secure continuation of business;
- recognize and identify uncertainties and subsequently develop the prediction of risks and measures needed to manage risks;
- take only calculated and assessed risks with respect to e.g. expanding the business, increasing market share and creating new businesses;
- avoid or minimize liability risks;
- ensure the safety of products, solutions and services;
- establish a safe working environment for the employees;
- minimize possibilities for unhealthy occurrences, crimes or misconduct by operating procedures, control and supervision;
- inform interest groups of risks and risk management; and
- be cost-effective in risk management.

#### The Aim of Risk Management is not to:

- exclude all risks in their entirety;
- adopt unnecessary control and management procedures; or
- take bureaucratic processes and procedures into use.

### Main Principles of the Risk Management Process

In connection with the strategy process and annual planning the CEO reviews business risks which could endanger the achievement of strategic or financial targets. The risk assessments of the strategy process are produced in accordance with the group's risk management process. Strategic and operative risks are monitored through monthly reporting by businesses in the Board of the Company. According to the risk management process, the Business Segments and Enabling Functions must produce assessments of risks in their designated areas of responsibilities and provide action plans to manage risks as well as to report on measures taken including the stage and effectiveness of such measures. These assessments and action plans are consolidated at the group level. The Company's CLO is responsible for the risk management process and coordinates its appropriateness and compliance.

### General Description of Internal Control and Operational Procedures

Internal control is a process applied by the Board of Directors, management and all levels of personnel in the Company to ensure that management has reasonable assurance that:

1. operations are effective, efficient, and aligned with strategy;
2. financial reporting and management information is reliable, complete and timely made; and
3. the Company is in compliance with applicable laws and regulations as well as the Company's internal policies and ethical values including sustainability.

The first category addresses the basic business objectives, including performance and profitability goals, strategy, implementation of objectives and actions and safeguarding resources. The second category relates to the preparation of reliable published financial statements, including half year financial reports and Business Reviews, as well as condensed financial statements and selected financial data derived from such statements, such as earnings releases, reported publicly. The third category deals with complying with those laws and regulations to which the Company is subject to.

## Internal Control Framework of the Company

Bittium's internal control framework consists of:

- the internal control, risk management and corporate governance policies and principles set by the Company's Board of Directors;
- management overseeing the implementation and application of the policies and principles;
- finance function and business controllers monitoring the efficiency and effectiveness of the operations and reliability of the financial and management reporting;
- enterprise risk management process identifying, assessing and mitigating risks threatening the realization of the Company's objectives;
- monitoring possible agreements and other legal acts between the Company and its related parties;
- compliance procedures making sure that all applicable laws, regulations, internal policies and ethical values (including sustainability) are adhered to;
- effective control environment at all organizational levels including control activities tailored for defined processes and creating group minimum requirements for product and service areas as well as for geographical areas;
- shared ethical values and strong internal control culture among all employees; and
- internal audit assignments reviewing the effectiveness of the internal controls as needed.

## Core Business Processes of Businesses and Enabling Functions

Risk management procedures of the Businesses and Enabling Functions are in place for business processes in the form of defined control points:

- relevant process risks are identified;
- common control points / Company's minimum requirement control points are identified;
- common control points are implemented in processes; and
- additional control points can be determined as needed at business or functional levels.

Control activities are the policies and procedures that help ensure that management directives are carried out. They help ensure that necessary actions are taken to address risks to achievement of the Company's objectives. Control activities are set throughout the organization, at all levels and in all functions. They include various range of activities including but not limited to approvals, authorizations, verifications, reviews of operating performance, securing of assets and segregation of duties.

## Internal Controls of Financial Reporting

The Company's external financial reporting process, internal control and risk management systems are briefly described in this section. The main focus is on financial accounting and related controls.

### Financial Reporting Organization

The financial management of the Company is responsible for organizing the accounting, money transactions and other daily financial operations of the companies belonging to it as well as organizing the internal reporting that supports the business.

The tasks of the Company's financial administration consist of, inter alia, monthly consolidation of the Group entity, preparation of quarterly financial reports and con-

solidated financial statements, management and investment of monetary assets of the Group, management of liabilities, protection against exchange risk, and transfer pricing. The finance function of the Company implements operative supervision under the CFO who reports any supervisory findings to the Audit Committee. The tasks and responsibilities of the accounting function of the parent company and each subsidiary are included in the job descriptions of the teams and employees.

### Financial Reporting Systems

Consolidated financial statements are prepared by using the chosen consolidation tool. The accounting of the Group's subsidiaries is done by using the local accounting systems from which the actual figures are reported either manually or by automatic transfer to the group consolidation system. The accounting system in use includes general ledger accounting, accounts payables and accounts receivables. Current assets and payroll accounting is organized through various programs or purchased as an outsourced service. Purchase invoices are circulated through electronic invoice processing system. Global forecasts and budgets are prepared by using the forecast and reporting program.

### Internal Controls

The Company's internal control mechanisms are based on policies, instructions, limited process descriptions, authorization matrix, financial reporting review meetings, and segregation of key accounting duties.

### Compliance Procedures

Compliance processes are in place at all levels of the organization to ensure that all applicable laws, regulations, internal policies and ethical values, including environment sustainability, are adhered to. The management and businesses are responsible for following up developments in legislation and regulations in their respective areas and communicating them to the organization. The members of the Management Group are responsible for setting up adequate compliance controls and compliance related training in their units. CLO of the Company

coordinates the appropriateness and compliance of the compliance processes.

## Roles and Responsibilities Regarding Risk Management and Internal Control

The key roles and responsibilities regarding the Company's internal control and risk management are defined as follows:

### Board of Directors

The Board of Directors is ultimately responsible for the administration and the proper organization of the operations of the Company. According to good corporate governance, the Board also ensures that the Company has duly endorsed the corporate values applied to its operations. The Board approves the internal control, risk management and corporate governance policies. The Board establishes the risk-taking level and risk bearing capacity of the Company and re-evaluates them on a regular basis as part of the strategy and goal setting of the Company. The Board reports to the shareholders of the Company.

### Audit Committee

Audit Committee is responsible for the following internal control related duties:

- to monitor the reporting process of financial statements;
- to supervise the financial reporting process;
- to monitor the efficiency of the company's internal control, internal audit, if applicable, and risk management systems;
- to review the description of the main features of the internal control and risk management systems pertaining to the financial reporting process, which is included in the company's corporate governance statement; and
- to monitor the statutory audit of the financial statements and consolidated financial statements.

More detailed descriptions how the Audit Committee is fulfilling its monitoring role are defined in the Committee's annual plan. The Audit Committee reports to the Board of Directors of the Company.

### Chief Executive Officer

The CEO is in charge of the day-to-day management of the Company in accordance with the instructions and orders given by the Board. The CEO sets the ground for the internal control environment by providing leadership and direction to senior managers and reviewing the way they are controlling the business. The CEO is in charge of the allocation of resources to the risk management work, review of risk management policies as well as defining the principles of operation and overall process. The CEO reports to the Board on risk management according to the Annual Clock.

### Management Group

The members of the Management Group are responsible for internal control implementation in their responsibility areas. More specific internal control policies and procedures are established within the principles set by the Board and CEO. Additionally, the management of the subgroup and the Group Management are responsible for implementing risk management practices in planning cycle and daily operations, and ensure the adherence of:

- laws;
  - regulations;
  - internal policies; and
  - ethical values
- in their designated responsibility areas.

The CFO:

- ensures a setup of adequate control activities for Business Segments in cooperation with the Business Segment management;
- follows the adequacy and effectiveness of control activities; and
- ensures that external reporting is correct, timely and in compliance with regulations.

Finance function does not have a separate internal control function. CFO reports any supervisory findings to the Audit Committee.

The CLO ensures that the Group's corporate governance practices comply with the law and that legal matters of the Group are handled appropriately, in particular the

contractual risks relating to business operations.

The CLO is in charge of the Company's risk management process and its continuous development. The CLO reports to the CEO and management group on risk management as part of the monthly reporting.

### Internal Audit

The Company has no specific internal audit organization. This is taken into account in the content and scope of the annual audit plan. On the one hand, external auditing focuses on specific areas in turn to be audited, and on the other hand, on separately agreed priority areas.

## Insider Guidelines

The Company adheres to the Insider Guidelines for Listed Companies prepared by Nasdaq Helsinki Ltd (previously NASDAQ OMX Helsinki Ltd, OMX Nordic Exchange Helsinki Ltd and Helsinki Stock Exchange), the Central Chamber of Commerce and the Confederation of Finnish Industries. The Company has complemented the Guidelines by its internal insider guidelines. The insider and trading guidelines approved by the Company include regulations on insiders, publication and postponement of publication of inside information, prohibited use of inside information, insider registers, duty of notification of managers' and their closely associated persons' transactions, and personnel's own trading with the Company's financial instruments. The purpose of the guideline is to explain the content of the guideline published by Nasdaq Helsinki Ltd and other regulations and restrictions relating to the matter, and to unify and coordinate the processing of insider and trading matters within the Company.

The managers of the Company must comply with the EU Market Abuse Regulation's prohibition on dealing in the Company's financial instruments (closed period). In accordance with the Company's Board of Directors' decision, the Company has in addition determined certain time periods

during which persons taking part in the preparations of the Company's financial reporting and other persons who have access to information pertaining to the Company's financial status are prohibited to trade the Company's financial instruments. The purpose of the trade restrictions is to control trading of the Company's financial instruments, and thereby increase trust to the Company and the operation of the securities market. Trading with the Company's financial instruments is completely prohibited for the aforementioned persons for a period of 30 days before the publication of earnings information of the Company. The most common publications are the release of business review and half year report as well as release of the Company's financial statements. The restriction is applicable also to any possible preliminary information regarding the financial statements, and business review and half year report.

Persons included in a project-specific insider register are prohibited from all trading and business transactions until the project has expired or has been publicly announced. If the project falls upon another listed company or may affect the price of the financial instruments of another listed company, the project-specific insiders have no right to trade with such company's financial instruments.

The Company voluntarily maintains on its website a list of the financial instruments owned by the Company's managers or by the institutions operating under the authority of the managers. The list is updated on the last day of each month.

## Related Party Transactions

The purpose of Company's Guidelines on Related Party Transactions is to ensure that any business transactions involving persons belonging to the Company's related parties are made independently and based on market terms. This also applies to business transactions that otherwise may raise suspicions on whether the transaction was

made on market terms. The Company assesses and monitors that any related party transactions promote the purpose and interests of the Company and are commercially justified and overall in the best interests of the Company and that any conflicts of interest are duly taken into account when making decisions on related party transactions.

According to the definition in the Limited Liability Companies Act, a related party transaction is not part of the company's ordinary course of business or is made in deviation from customary commercial terms. This kind of related party transactions are uncustomary in the company's business. In addition to the general monitoring concerning related party transactions, the Company prepares a special report on transactions that are not part of the Company's ordinary course of business or are made in deviation from customary commercial terms.

The Company has defined its related parties according to the IAS 24.9 standard and maintains an up-to-date register of major business transactions between the Company and its related parties, the parties, and the key terms of such transactions. The information about the related parties is collected annually from the persons belonging to the Company's related parties and serving the Company. The Company monitors possible related party transactions as a part of its internal control. Roles and responsibilities regarding internal control are described on the Company's internet site. In addition, the above-mentioned persons are obliged to notify the Company's related party administration of any related party transactions which have come to their knowledge. Such notification must be made without delay after receiving such information. The transactions are considered major if their total amount exceeds € 20,000 during the financial period.

The Company's related party register is not public, and any information entered in it will not be disclosed to third parties, with the exception of any authorities and the auditor entitled to receive such information. Any

major transactions to be performed with the Company's management and its related parties shall be approved by the Board of Directors.

The Company discloses the related party transactions relevant to the shareholders at the latest when the transaction is binding on the Company. The principles of the Guidelines on Related Party Transactions are observed throughout the Bittium Group and in the decision-making concerning all of the Group companies.

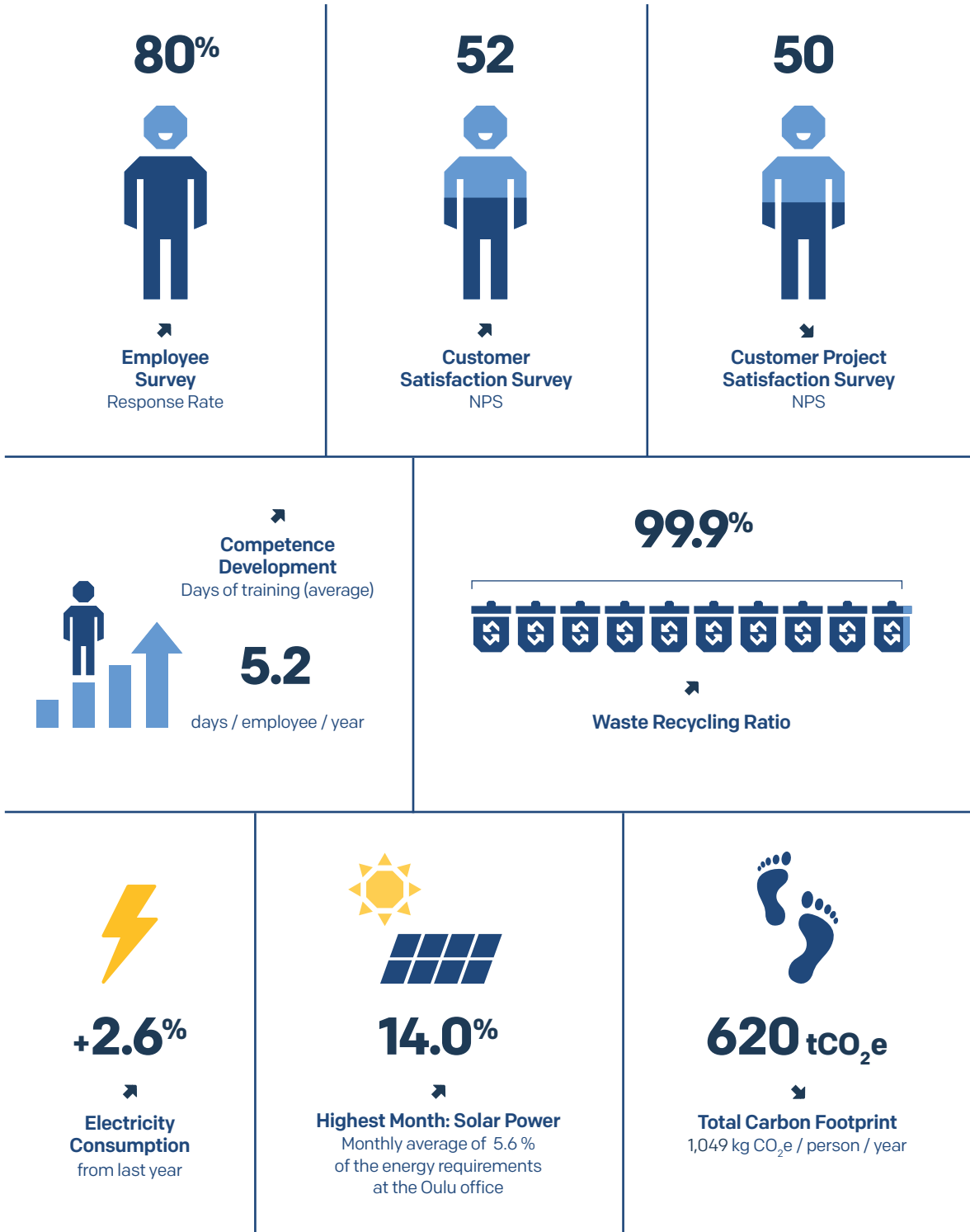


# Sustainability at Bittium in 2023

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# Sustainability Highlights in 2023





# The CEO's Statement on Sustainability

The year 2023 was a period of major changes for Bittium. We updated our strategy and are moving on to a new stage as a company, with the goal being profitable growth. Our business operations must be profitable and sustainable so that we can provide work and well-being for our personnel while also taking into consideration our customers, investors and other stakeholders. From this perspective, the focus areas of our sustainability program are still highly relevant to us.

Success can only be achieved with competent personnel. Nevertheless, we had to make painful decisions regarding our personnel in the fall when we reorganized our business operations. The changes and the uncertainty they brought were also reflected in the results of our employee survey we conducted in January. For example, the employee commitment index decreased slightly.

Our position as a pioneer of technology requires that our personnel actively maintain and develop their own expertise in the continuously changing operating environment. We focus on keeping abreast of the latest technologies, tools, legislation, and other regulations. As a trailblazer, we also need to have insight into technological trends and the development of the operating environment.

The prevailing uncertainty around the world has also reflected our operations. Trust, which is one of our core values, takes on even greater importance in times like these. It is one of the pillars of our "Customers and Information Security" focus area, and we mea-

sure it annually in connection with our customer satisfaction survey. Our customers must be able to trust us and our products and expertise in a world where the significance of information security, for example, is higher than ever before. We must stay on the leading edge of developments, which is why we actively participate in information security development projects in Finland and internationally.

The quality of our work and the satisfaction of our customers are a high priority for us. We measure this regularly with customer satisfaction surveys. Despite the fact that 2023 was a year of major changes, we succeeded to serve our customers well, and our customer satisfaction result improved compared to the previous year. We humbly accept this feedback and continue the systematic work to serve our customers in the best possible way.

Due to the nature of our business and the fact that our customers operate in critical sectors of society, ethical principles and responsible business practices are vital for us. We observe a very wide range of requirements issued by the authorities and ensure compliance and strict adherence to deadlines.

In 2023, we began preparing for the introduction of digital product passports by proactively collecting data into our product information management system. The digital product passport is part of the new circular economy package published by the European Commission.

At Bittium, environmentally sustainable operations mean responsibility for mitigating the climate change and developing resource-efficient solutions. The most notable environmental impacts of Bittium's products occur during the last stage of the life cycle, that is, recycling. We apply the rules laid out in the EU's Ecodesign Regulation in our product design and development. Our secure smartphone, Bittium Tough Mobile 2, fulfills the requirements of the Regulation, which entered into force in 2023.

We are actively committed to combating climate change. We strive to invest in renewable energy, reduce travelling, recycle waste efficiently and strive to maximize the beneficial use of waste. We have been calculating our carbon footprint since 2018. In 2023, our carbon footprint was lower than ever before.

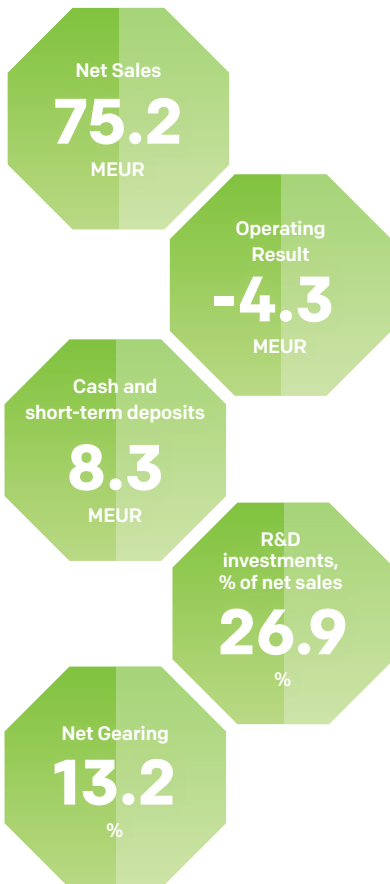
Our long-term sustainability efforts were recognized last year with a silver medal in the EcoVadis sustainability ratings. We were ranked in the top 25 percent globally among the assessed companies.

Sustainability is an integral part of Bittium's operations. We want to develop our operations and processes and do our part in building a better future.



**Johan Westermarck**  
CEO

# Bittium in Brief



## Description of Operations

Bittium is a Finnish technology company specializing in the development of reliable, secure communications and connectivity solutions, and the development of products and services for measuring and monitoring biosignals outside of hospitals. Bittium has an over 35-year legacy of deep expertise in various technologies. Bittium provides its customers with innovative products and services, customized solutions based on its product platforms, and product development services.

Sustainability is essential part of daily work and management that basis on the company's strategy and values.

Sustainability is present in Bittium's operations throughout the life cycle of our products, in our procurement chains, and in the way we create value for the surrounding society.

## Updated Strategy

On October 30, 2023, Bittium announced its updated strategy concerning the years 2024 and 2025. Bittium's main goals are to achieve an average annual net sales growth of more than 10 percent and an operating profit level of 10 percent. The updated strategy will enable the achievement of the set goals.

In accordance with the updated strategy, the company has three Business Segments: **Medical**, which focuses on measuring biosignals and remote monitoring, **Defense & Security**, which offers products and services to the defense and security markets, and **Engineering Services**, which offers R&D services. Group operations that were previously centralized are now also largely divided into the company's three Business Segments, best meeting the needs of each segment. This was an essential change to optimize the operation of more independent businesses.

The company's updated strategy has three main focus areas. The first one is a change from a product development organization to a customer-centric, growth-oriented operating model through its segment organizations. Secondly, the company focuses strongly on its current products and increasing their market shares. The R&D work is mainly concentrated on further improving the competitiveness and productivity of these products. Thirdly, the company seeks to increase efficiency in its own operating methods and has streamlined its cost structure, which is expected to significantly improve the company's profitability and cash flow.

Between 2016 and 2023, the company's two Business Segments, Defense & Security and Medical, have strongly invested in the development of their own products. This has maintained the company's high average annual R&D investment level of around

EUR 20 million, corresponding to an average of approximately 25 percent of the company's annual net sales. Both product-oriented Business Segments will now focus on continuous improvement of the competitiveness of existing products and development of their features. Continuous product improvement is highly important to competitiveness of both Business Segments. In addition, the company will use development cooperation with other companies in its product development in the future. In the R&D oriented operational model the cost structure in the company has been heavy due to the large R&D projects.

#### Medical Business Segment

The Medical Business Segment consists of three business areas, which are the measurement and analysis of the electrical activity of the heart (ECG), the measurement and analysis of the electrical activity of the brain (EEG), and the measurement and analysis of sleep apnea. In business, the focus is specifically on further improving the competitiveness, and productivity of the products, as well as on the efficiency of operations.

In the medical technology market, significant development is taking place regarding the treatment of patients, especially outside hospitals. Increasing efforts are being made to prevent diseases and health problems with the help of early diagnostics. The aim is to discharge patients at an even earlier stage to reduce hospital and treatment days. These significantly increase the efficiency of healthcare processes, reduce costs, and improve the treatment experience. The prerequisite for the prevention of health problems and early discharge is enabling accurate monitoring and measurement in home conditions with the help of remote monitoring.

The offering of the Medical Business Segment focuses on remote monitoring solutions. Bittium has solid and proven world-class biosignal processing technology expertise. In the coming years, the company will focus on its product business to also increase the amount of recurring net sales,

both with the help of software and various multi- and single-use products. In the medical business, the focus will be on cooperation with existing international key customers to increase market shares together, and on acquiring new customers.

#### Defense & Security Business Segment

The Defense & Security Business Segment consists of three business areas that are defense industry products (Defense Products), defense industry product development services (Defense Services) and secure products and services (Security). Bittium's business consists of tactical communication solutions aimed at the defense market and high security communication solutions aimed at authorities and the professional user market.

Russia's war of aggression against Ukraine has increased the defense budgets of various countries and increased the states' interest to modernize their tactical communication systems. The defense forces of different countries and other authorities need networks for tactical data transmission, where increasingly mobile network users can reliably and securely transfer growing amounts of data. Finland's NATO membership is also expected to have a positive effect on the demand for Bittium's defense and secure products, especially in NATO countries. Bittium has superior waveform quality and secure wireless technology integrated with hardware and software intended for defense and authorities' use.

Over the past years, the company has made significant investments to expand its product portfolio. The products and systems are now at an internationally very competitive level, both in terms of coverage and technical characteristics. In the future, the company will focus on the continuous improvement of the competitiveness of existing products and the development of features to ensure the preservation of competitiveness. The company will put emphasize strongly in its key customers and invest in international sales and marketing to pursue new customers. The company's goal is to grow signifi-

cantly the international product business and achieve an internationally significant position as a provider of tactical communication and high security communication solutions.

#### Engineering Services Business Segment

In the Engineering Services Business Segment, Bittium offers its customers R&D services and wireless connectivity solutions for the development of innovative products in a secure and evolving wireless environment. The company has focused its R&D service offering around radio technologies and embedded devices. Bittium has world-class expertise in wireless technologies and comprehensive product development throughout the whole product life cycle.

In the mobile telecommunications, investments in the development of new features continue, and the importance of software development regarding the development of 5G networks is strengthened. Along with digitization, secure IoT (Internet of Things) is a significant development area in almost all industries, where the demand is created by the growing need of companies to digitize their operations, collect data wirelessly and transfer data to cloud services, as well as monitor and control devices and systems remotely. Also, the goal of western companies to shift the focus of R&D to an increasing extent, e.g., to Europe, creates more demand for companies offering R&D services and wireless connectivity solutions.

In the coming years, Bittium will continue to grow its international customer base, especially in the Industry IoT market segment. The company will also invest in developing strategic partnerships with its current customers.

## Our Value Creation Model

### Our Key Resources

#### People

- Over 500 specialists
- Investments in employee well-being and competence development

#### Customer Relationships

- A wide customer base in the public and private sector

#### R&D and materials

- A corporate culture that supports innovation
- Investments in product development
- IPR management
- Sustainable materials purchasing

#### Profitable and Responsible Business

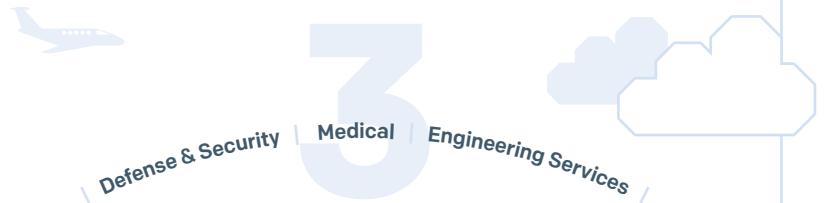
- Strong balance sheet
- Investments
- Sustainable approach to business
- Comprehensive quality, environment and safety systems
- Sustainable use of natural resources (energy and water)
- Compliance processes

#### Stakeholders

- R&D cooperation
- Cooperation with stakeholders and the authorities
- Trust-based partnerships

### Our Mission

Our mission is to utilize our world-class expertise and innovation to enable secure embedded technology for the benefit of people and societies.



Our product and service areas deliver solutions that enable our customers to respond to the changes and opportunities created in the operating environment by new technologies.





## Outputs and Impacts

### Customers, Products, and Services

- Customer relationships based on trust
- Long-term partnerships
- Secure products with long life cycles featuring state-of-the-art technology
- Secure communication and connectivity solutions
- Reliable and advanced solutions for remote monitoring in healthcare
- Minimizing product life cycle impacts
- Quality, productivity, and information security

### Society and the Environment

- Taxes, salaries, and wages
- Active role in the partner network
- Added value created by R&D
- High-end technology solutions to meet the growing needs of society
- Optimizing energy and water consumption in our operations and in all stages of the life cycle of our products
- Enabling cost savings in healthcare through technology solutions

### Innovative Experts

- Innovative experts with a high level of well-being
- Continuous competence development
- Meaningful work and a supportive working environment

### Investors

- A profitable and stable investment

## Megatrends Affecting Bittium's Business

One megatrend that has a huge effect on Bittium's operations is digitalization, which has affected all areas for several years already, and the different manifestations of which create both business threats and business opportunities. The digital transformation in society will continue with increased investments in networks formed by smart devices, people, and processes. Digitalization increases efficiency and enables better allocation of resources.

### The Internet of Things (IoT)

The growing importance of IoT requires the integration of operating processes and secure IoT solutions to achieve efficiency advantages. The tools and approaches we use in developing our operations include robotic processes and testing automation as well as data visualization. The company develops challenging IoT solutions with high information security requirements for its customers.

### Digitalization and the ageing population

The ageing of the population and population growth make the digitalization of health care crucial for maintaining the productivity and coverage of services. Remote monitoring, wireless solutions, new home-based care methods as well as faster and more efficient health data analysis are among the technological solutions Bittium has developed for its customers.

### Information security

The progress of digitalization and technologies brings with it an increase in information security threats. Cyber security breaches are among the most significant threats associated with digitalization. Stricter information security and regulatory requirements are reflected in the operations of the company and its customers. The requirements are also expanding to cover new sectors and applications, and the importance of information security certification is growing. Bittium recognizes these rapidly increasing sector-specific requirements and keeps itself on the leading edge of the industry in responding to them.

### Geopolitical uncertainty

The world's geopolitical situation creates uncertainty in the market outlook. States have increased their defense budgets, and interest in modernizing tactical communication systems to meet the needs of modern warfare has grown. Bittium's products support the modern way of fighting, where the mobility and management of troops from the movement as well as effective communication are the key.

# Sustainability Management

## Sustainability Organization and Risk Management

Bittium has a separate sustainability working group, which develops, monitors, and assesses key sustainability indicators and the achievement of targets. The working group is tasked with the management and scanning of sustainability risks as well as sustainability reporting in the company.

The sustainability working group is led by the Vice President, Communications and Sustainability. The group has six (6) mem-

bers: the CEO; Vice President, Communications and Sustainability; Chief Legal Officer; CFO; Director, Human Resources; and Head of Quality and the Environment. The sustainability working group holds quarterly meetings and prepares the sustainability report. Bittium's management and the Board of Directors review the sustainability report annually (management review).

Bittium's Management Group discusses sustainability issues, monitors the effectiveness of sustainability measures, and sets sustainability targets in its twice-yearly management review. The Management Group is also responsible for implementing

sustainability plans and actions in day-to-day operations.

The Audit Committee of Bittium Corporation's Board of Directors discusses sustainability issues on a regular basis and as needed. The Audit Committee oversees the company's preparations for the introduction of the new Corporate Sustainability Reporting Directive. The Committee monitors the company's sustainability reporting and the assurance thereof.

The Board of Directors of Bittium Corporation discusses sustainability issues on the basis of the Management Group's proposals

### Sustainability Management at Bittium



and approves the company's annual sustainability report.

The management of risks related to the company's operations and the operating environment, as well as the relevant processes, are described in Bittium's Corporate Governance Statement.

## Bittium's Ethical Principles and Code of Conduct

Bittium's ethical principles comprise the following areas of sustainability:

### 1) Anti-corruption measures

The nature of Bittium's market area and business sector makes corruption one of the main risks related to social sustainability and human rights. Bittium does not condone any forms of bribery or corruption in its operations or those of its partners. Bittium updated its internal and external anti-corruption guidelines in 2017. The employees receive training on the guidelines.

Bittium expects its partners to comply with these guidelines. The company uses a monitoring tool for detecting corruption and other irregularities in the operations of its partners.

The company's external and internal stakeholders have access to a channel for reporting violations of anti-corruption rules. There were no cases of corruption reported to Bittium in 2023.

### 2) Information security and protection

Bittium's information security and data protection policies specify the methods employed in the classification, storage and disclosure of information.

### 3) Fair business, advertising and competition

Bittium follows the rules on fair business, advertising and competition. The company has access to different methods of securing our customers' information in accordance with information security procedures.

### 4) Corporate citizenship

The company supports community involvement in order to promote social and economic development.

### 5) Protection of intellectual property rights

Bittium respects intellectual property rights and applies its IPR strategy and guidelines to all of its operations.

Sustainable purchasing is also an essential part of our sustainable business operations. The principles of sustainable purchasing have been described in greater detail in Confidential customer relationships and secure products.

## Stakeholder Cooperation

Bittium's operations affect a wide range of stakeholders. Understanding their views and expectations is important for the company's operations and success. Open dialogue with the stakeholders helps to develop Bittium's

operations, products and solutions as well as a goal-driven approach to finding solutions to social challenges.

Bittium works in cooperation with national as well as international stakeholders. The major stakeholders include Bittium's employees, customers, various suppliers, cooperation partners, authorities and other parties regulating the operations, shareholders and investors, students and educational institutions as well as various communities. The company's stakeholder-related activities are guided by good governance and the Code of Conduct.

### Personnel

Bittium arranges several different staff events each year where employees get the opportunity to ask questions and give feedback. The opportunity to have open dialog and present questions directly to the management has formed a key part of communication. During the COVID-19 pandemic, all staff events were held online to safeguard the employees' health and business continuity. In these events, the dialog between the management and employees was even more active than in on-site events, and the possibility to participate regardless of location significantly increased the number of participants. This is why it was decided that the events will be online events even after the COVID-19 pandemic subdued.

In 2023, the company underwent major changes in its operating practices and processes. Staff events and briefings related to the changes were arranged more frequently than usual to support the communication and implementation of the changes.

In addition to staff events, Bittium's employees can give feedback through the annual anonymous employee survey. Equal treatment and open interaction are important to our employees. Employees expect us to offer interesting and meaningful work, and opportunities for professional growth. In addition to the annual employee surveys, the company obtains information on the well-being of employees through quarterly pulse surveys, which allows for any issues to be addressed more rapidly. The results of all surveys are available to the employees in the company intranet.

#### Customers

Customers feedback is received on a continuous basis, primarily by means of frequent communication and through various annual surveys. In 2023, surveys were carried out both by means of interviews and online. Feedback is collected from various levels of customer organizations, ranging from project personnel to senior management. The customer feedback collection method has proved to be effective and it will be continued in 2024.

The Scrum and Agile methods we use and the supporting online systems (as real-time as possible) allow ongoing monitoring and open dialog. This enables us to quickly react to potential problems.

Our customers value competitive and reliable products and services as well as our sustainable and real-time approach to our operations. Our major customers are leading international companies. Although the COVID-19 pandemic taught flexible cooperation via the internet, face-to-face meetings are perceived as delivering higher engage-

ment and commitment. Product and project inspections and approvals, in particular, are easier to carry out face-to-face.

#### Suppliers and partners

When it comes to our suppliers and other partners, we have often worked with them in close cooperation for a long time following established rules and ways of working. Constant communication enables open dialog. Suppliers and partners expect fair and sustainable operations and long-term cooperation from Bittium. For its part, Bittium expects that the business operations of its suppliers and partners are sustainable, and this is monitored on a regular basis.

#### Authorities

Bittium maintains a regular line of communication with the authorities, for example, with regard to export control and information security issues. The company regularly monitors compliance with laws and regulations. Applying them to the company's business operations requires open and ongoing interaction with the authorities.

#### Local cooperation

As part of sustainable corporate citizenship, Bittium actively cooperates with various communities. The expectations of different communities are met in a variety of ways. The company regularly supports educational institutions and schools to introduce young students to working life – and not forgetting the teachers. Thanks to this collaboration, Bittium is also able to recruit new and enthusiastic graduates.

Research and development cooperation with companies and research institutions broadens Bittium's expertise and makes it possible to mutually promote development.

#### Shareholders and investors

Shareholders, investors and analysts expect that Bittium provides long-term value and acts in a sustainable manner. Analysts who follow the company are met on a regular basis, and the company participates in events organized for institutional investors. The Annual General Meeting, which takes place once a year, provides the shareholders with the opportunity to meet and discuss with the company's management and Board of Directors.

In 2021, the company engaged in discussions taking place in a moderated discussion forum aimed at investors in order to increase and improve communication with investors. In 2023, this work was continued with the aim of improving understanding of the company's strategy and business through open and transparent discussion.

In connection with updating its strategy, the company organized a Capital Markets Day for analysts and investors in 2023. The event was organized as an in-person event in the Helsinki metropolitan area. Following presentations, investors had the opportunity to meet representatives of the company's management and largest shareholders, and learn more about the company's products and services. Attending the event virtually was also possible. A total of 40 people attended the event in person, and 374 people watched the event online. The recording of the event had been viewed 786 times by the end of 2023.



# Sustainability at Bittium

## Economic Impact

Bittium's goal is to operate cost-efficiently and profitably in the long term. This creates added value for the company's various stakeholders and the surrounding society. Profitable operations create economic benefits for shareholders, employees, partners, subcontractors, distributors, customers, municipalities, and the state.

Legal compliance is the basic premise of economic responsibility. However, in many respects, Bittium's sustainability and impact exceed the legal requirements. Economic responsibility also includes the company's anti-corruption practices, according to which we require our personnel and partners to commit to our anti-corruption operating guidelines.

Bittium invests in the development of customer relationships and the company's expertise in order to provide reliable products and services to customers. Bittium's cooperation with the company's supplier and subcontractor network is based on professionalism and a long-term approach. Partners are selected carefully and required to operate in accordance with the Supplier Code of Conduct.

### Creating Added Value for Stakeholders

With respect to Bittium's economic impact, the local dimension is what matters most. Local added value is generated especially through Bittium's direct and indirect employment impact. On a larger scale, Bittium's impact extends via tax payments, dividends and business impacts into the countries in which the company operates

around the world. Bittium's dividend policy takes into account the Group's result, financial position, capital needs and the financing required for growth.

Bittium is present in Europe, the Americas and Asia. The majority of the company's employees work in Finland, more than half of them in the city of Oulu.

Ensuring added value means securing long-term growth and financial stability, comprehensive risk management and a long-term commitment to the development of society and local communities. In addition to financial risks, risk management must take into consideration other risks related to the valuation of the company, such as reputational risks.

## Tax Footprint

Taxes are part of Bittium’s business process, and tax management supports the company’s strategy.

Bittium’s tax strategy is to support business decisions and ensure their proper execution also from the perspective of taxes. Tax planning supports business efficiency and productivity, creating added value for shareholders and ensuring regulatory compliance. Bittium’s tax planning is not aggressive and it is always based on actual business needs, instead of artificial arrangements.

Bittium’s tax strategy aims at making sure that the company calculates, reports, and pays taxes correctly to the authorities, in compliance with the regulations in effect. As Bittium operates in five countries, the starting point is to comply with the local legislation and meet the local obligations.

The company’s guiding principle is to be open and transparent with the tax authorities in all the countries in which it is present. In Finland, Bittium works in close cooperation with the Tax Administration.

## R&D Investments

Bittium operates in a sector that creates products and services for the future through continuous development, innovations and cross-sector cooperation. The company plays an important role at the leading edge of technological development, and active cooperation with academic researchers increases understanding of significant new technologies and promotes the digitalization of society. Bittium has a close and long-established cooperation relationship with the University of Oulu.

In 2023, Bittium was involved in the role of funding provider and research partner

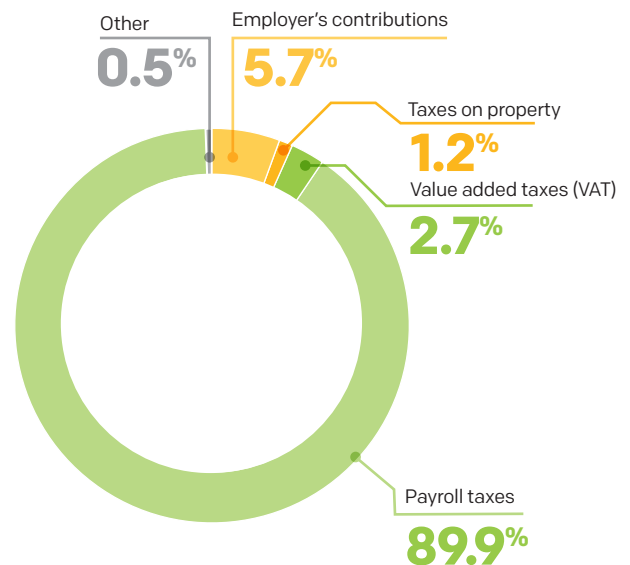
in several EU cooperation projects. Examples of these include ITEA4 (software-intensive systems), Horizon2020 (Horizon 2020 framework program), CELTIC – Next (Eureka cluster for next-generation communications for a secured, trusted, and sustainable digital society), EDF (European Defense Fund), and national projects financed by Business Finland.

The focus areas of these cooperation projects included technologies that are highly relevant to Bittium’s future product and service business, such as various communications solutions for the defense industry and authorities, information security solutions related to products, the development of AI and machine learning methods in fields such as health care, the digitalization of product development and, for example, simulation methods for different areas of product development, and methods and operating practices related to regulatory software development. Research projects were

## Tax Footprint in 2023

MEUR

	2023	2022
<b>Taxes collected</b>		
Value added taxes (VAT)	-0.3	-4.0
Payroll taxes	-10.2	-10.0
<b>Total</b>	<b>-10.5</b>	<b>-14.1</b>
<b>Taxes borne</b>		
Employer’s contributions	-0.6	-0.6
Taxes on property	-0.1	-0.1
<b>Total</b>	<b>-0.8</b>	<b>-0.7</b>
<b>Taxes total</b>	<b>-11.3</b>	<b>-14.8</b>



**Stakeholders and Economic Impact in 2023**

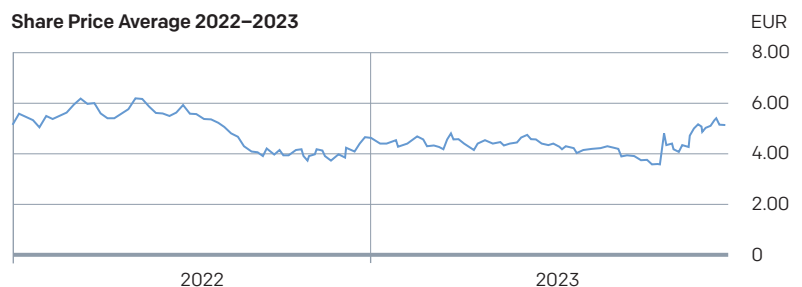
also established in 2023 in the focus areas under Bittium’s Leading Company program.

In 2023, the R&D investments were 26.9 percent of the net sales (27.0 percent). The investments focused mainly on developing medical technology products, developing tactical communication system and its products for the defense industry, and special terminal products and their related security software targeted for authorities.

On October 30, 2023, Bittium announced its updated strategy concerning years 2024 and 2025. In the strategy the company is seeking a change from a R&D organization to a customer-oriented, growth-oriented operating model through its segment organizations. Between 2016 and 2023, the company’s two Business Segments, Defense & Security and Medical, have invested strongly in the development of their own products. This has maintained the company’s high average annual R&D investment level of around EUR 20 million, corresponding to an average of approximately 25 percent of the company’s annual net sales. In both product-oriented Business Segments the large product development projects have proceeded into commercial phase. During the next two years period, these segments will now focus on continuous improvement of the competitiveness of existing products and development of features, which is the highly important to competitiveness in both Business Segments. In addition, the company will use development cooperation with other companies in its product development in the future.



Share Price Average 2022–2023



# Sustainability Program 2022–2025

In accordance with the new sustainability program for 2022–2025, Bittium has four focus areas: innovative and developing people; confidential customer relationships and secure products; corporate citizenship and sustainable business practices; and environmental sustainability.

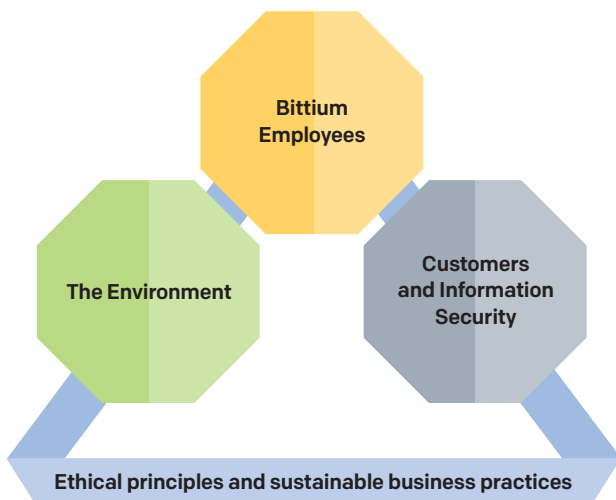
Bittium monitors the progress of each focus area using selected indicators in accordance with its sustainability program and continuously develops its operations and performance.

The most important resources of Bittium’s business are highly competent people, a diverse work community free of discrimination, and taking care of employee well-being and competence. Bittium provides its employees with challenging and motivating jobs, and is committed to supporting their development and investing in their well-being.

Bittium is a reliable operator for all of its stakeholders. Stakeholder engagement is guided by good corporate governance as well as the company’s ethical principles and Code of Conduct. In customer relationships, sustainability is reflected in the way of working, the quality of products and the trust that characterizes the company’s customer relationships. Trust is the starting point for Bittium’s operations.

Sustainable business practices are a cornerstone of Bittium’s operations. It provides a solid foundation for risk management and represents a core value as well as a competitive advantage. Sustainability helps the company with long-term value creation.

Responsibility for the environment, the mitigation of climate change and resource-efficient solutions are key aspects of Bittium’s operations and their development. By maximizing the service life and recyclability of products, their total life cycle impact can be influenced. The company also strives to minimize the environmental impacts of its operations. The company’s performance is monitored through the environmental program.



## Materiality Analysis

Bittium conducted a materiality analysis on sustainability in 2019. The aim of the analysis was to establish an understanding of the stakeholders’ views regarding the previously selected focus areas in sustainability. To support the materiality analysis, we carried out a stakeholder survey in the form of an online questionnaire for customers, partners, investors, employees, the management, and other stakeholders. A total of 125 people completed the survey.

The survey assessed the significance of Bittium selected sustainability focus areas for the company’s business and evaluated the content of each focus area to assess the company’s performance in taking each focus area into consideration. In addition, it was assessed whether there were any other areas of sustainability that were previously not included in Bittium’s selected focus areas, and that the company should take into consideration in its operations.

To increase the understanding of the stakeholders’ perceptions of Bittium’s sustainability, the respondents were asked to compare Bittium with other companies from the perspective of sustainability. Bittium’s average score was 8.3 on a scale of 1–10.

The participants were also asked to indicate their willingness to recommend Bittium as a sustainable company (Net Promoter Score, NPS). The stakeholders gave Bittium’s sustainability an NPS of 37, which can be considered to be a good score. NPS scores range from -100 to +100, and all scores above 0 are considered good.

After establishing the priorities of the identified material aspects, the final outcome of



the analysis was a materiality matrix confirmed by the Management Group and the Board of Directors. The matrix summarizes the views of the company's internal and external stakeholders regarding Bittium's material aspects of sustainability as well as the company's impacts and areas of development. After the priorities had been determined, the materiality matrix was approved in discussions held between Bittium's Board of Directors and the Board's Audit Committee.

The materiality analysis conducted in 2019 was also used for the basis when updating the sustainability program for the years 2022-2025.

As part of the preparation for the entry into force of the EU's new sustainability directive, Bittium will implement a dual materiality determination in 2024. The analysis evaluates both external effects (the effects of the different stages of Bittium's value chain on society and the environment) and internal effects (risks and opportunities affecting Bittium's performance and business that may affect the company's value now or in the future). Based on the definition of materiality, the company will update its responsibility program.

## Alignment with the UN's Sustainable Development Goals

Bittium has evaluated the themes associated with the focus areas of its sustainability program with the UN Sustainable Development Goals, and identified the goals that it has already taken into consideration and promotes in its operations. Based on the selected focus areas of sustainability, the following UN SDGs are of particular relevance to the company:

- 3** Good health and well-being
- 8** Decent work and economic growth
- 9** Industry, innovation, and infrastructure
- 12** Responsible consumption and production
- 16** Peace, justice, and strong institutions
- 17** Partnerships for the goals



## The Focus Areas in Sustainability at Bittium are

### #1 Innovative and developing people

- We promote an open, equal, and diverse working culture
- We take care of the well-being of our employees
- We invest in the development of competencies and leadership skills

### #2 Confidential customer relationships and secure products

- We meet the special sector-specific and technological requirements of our customers (quality and security)
- We invest in innovative and agile product development
- We ensure the sustainability of our procurement chain

### #3 Corporate citizenship and sustainable business practices

- We engage in open dialogue with our stakeholders and support the local communities in which we operate
- We conform to sustainable business practices
- We create added value for our stakeholders through profitable and sustainable business operations

### #4 Environmental sustainability

- In accordance with the objectives set out in our environmental program, we strive to minimize the environmental impacts of our operations.
- We aim to optimize the service life and recyclability of our products.



# 1

## FOCUS AREA #1

# Innovative and Developing People

Innovative people are the company's most valuable resource, with the well-being of employees being the foundation of its success. At Bittium, we invest in the continuous development of competence and supervisory skills. Every day, we strive to act in accordance with our values – trust, courage, and innovation.

**The most important resources** of Bittium’s business are highly competent people, a diverse work community free of discrimination, and ensuring employee well-being and competence. Bittium provides its employees with challenging and motivating jobs and is committed to supporting their development and investing in their well-being.

The year 2023 was a period of changes for Bittium. The company updated its strategy and adopted a segment-based organizational model. Giving the businesses more autonomy enhances Bittium’s ability to serve its customers on a more customer-driven basis, and improves the speed of decision-making in each business. At the practical level, our strategic review covered both processes and the operating practices that ultimately influence our entire corporate culture. We commenced change negotiations in August, which led to 61 dismissals and 8 employees being temporarily laid off until further notice. In 2023, we focused heavily on implementing and supporting these changes, which meant that certain other considerations, such as strengthening the employer image, were assigned a lower priority.

## Objectives and Sustainable Development 2023

Bittium measures its development in the Innovative and Developing People focus area with regard to the following objectives: employee satisfaction, maintenance

of employee competence and ensuring special competence, strong employer image, and diversity, inclusivity, equality and equal treatment. The objectives and their achievement are described in the following sections.

## Employee Well-being and Engagement

Bittium’s target for the employee commitment index for the period 2023–2025 is 4.0 (on a scale of 1–5), but this target was not achieved in 2023. The Bittium Employee Survey (BES) on the year 2023 was carried out right at the beginning of January 2024. As expected, the change negotiations conducted in the latter part of 2023 had an effect on the results of the survey. Of the employees, 80% responded to the employee survey (77% at the end of 2022). The average score for the quantitative questions was 3.7 (3.8 at the end of 2022). The score for the survey section on supervisory work remained excellent with an average of 4.2. The employee commitment index came to 3.5, but the figures are not fully comparable with the scores for 2022 due to differences in the content of the survey.

The content of the survey was redesigned to some degree. The statements and questions took the business segment perspective more into account than previously. New statements were also added on sustainability and environmental perspectives, for example. In the section on supervisory work, the new perspectives introduced in the re-

vised survey included looking after the atmosphere of the workplace community and taking individual differences into consideration in a positive manner.

The BES survey section on project work was not included in the survey conducted in January 2024 because the most recent project survey was carried out in spring 2023. In the survey, we collected team-specific feedback from employees who work in customer and product development projects, with project managers being a particular target group. The results developed favorably on the whole, and we received positive feedback for improved communication in particular.

We continued to work under the hybrid model introduced in 2022, with employees having two in-office days per week. At the same time, the recommendation throughout the company has been to increase in-office work, especially in light of the changes in the organization, and because meeting colleagues and spending time at the office are perceived to be important. The teams have been empowered to decide on their practices concerning in-office work. Due to the nature of the work, some employees cannot work remotely at all. This includes people working in production and laboratories as well as employees whose job requires working in security-classified areas.

In addition to the employee satisfaction survey, we conducted one pulse survey in 2023 with a focus on assessing work-related mood and workload.

### Bittium Employee Survey 2023: highlights related to sustainability



Response rate: 80%. Scale: 1=poor, 5=excellent. ■ 2023 ■ 2022

## Personnel Development and Training

Bittium's objective is to maintain the competence of its employees and ensure special competence. Bittium's position as a pioneer of technology requires that the personnel actively maintain and develop their own expertise, both in terms of basic skills and the related common ways of doing things, as well as the latest technologies, tools, legislation and other regulations of the rapidly changing operating environment, and that they have insight into the trends in the development of technology and the operating environment. In the development of skills, the goal is continuous development and learning while working.

The Bittium Leader training, which began in 2021, continued in the first half of 2023 with two groups that started the program in 2022. The groups participated in two training modules focused on work ability management and the participants' role as a leader. Bittium's principles of good leadership were drafted in connection with the training program. A total of approximately 110 Bittium employees have participated in the training program, which is aimed at supervisors, project managers, and team leaders.

Online training activities are an important part of the maintenance of the Group's common basic skills, and online training activities targeted at all employees are available in relation to processes, methods of operation, systems and tools, among other things. The company continued to use the Plural-sight learning platform, where employees can participate in high-quality mini webinars, for instance. In the development of skills, examples of the current themes include topics related to information security, quality systems, programming languages, working in a cloud environment, and embedded systems.

In 2023, the average number of training days was 5.2 per employee. This includes

both internal and external training as well as orientation training and independent study. Internal training may also involve on-the-job learning and the sharing of expertise, and external training may involve independent study. Approximately 70% of the personnel participated in training in 2023.

## Bittium as an Employer

Bittium is perceived as a reliable Finnish company that is known especially for the products it provides to the Finnish Defence Forces. Awareness of the company's health care technology business has improved, and the company is seen as a competent specialist company in this sector.

Bittium canvasses the satisfaction of new employees regarding the orientation training and company image before and after the start of work through surveys. In 2023, the company image score prior to starting work was 7.7 (2022: 7.6), but the score decreased after starting work and was 7.3 (2022: 8.1). The results reflect the fact that project starts were delayed in the case of some new employees, and exceptionally low scores from a small number of respondents significantly reduced the average. The company has sought to remedy the issues concerning the employees in question.

## Diversity, Inclusivity, Equality and Equal Treatment

Bittium wants to provide its employees with equal working conditions regardless of backgrounds, ethnicity, gender, age, and other factors. In addition, Bittium maintains and promotes an interactive and participative working culture.

All employees and job applicants are treated equally regardless of their gender, age, ethnic background, political views, or other background factors. Bittium's equality plan is based on the Finnish Non-discrimination Act and the Act on Equality Between Men

and Women. The equality plan was updated in 2023. The key measures under the updated equality plan are still focused on equal pay and career opportunities, the openness of recruitment, and systematically supporting the careers of ageing employees.

The actual situation concerning equality at work is assessed in employee surveys from the perspectives of pay, career development, and recruitment. In 2023, Bittium conducted an equality survey that was responded to by 53% of Bittium's personnel in Finland. Based on the results of the survey, equality and non-discrimination are generally well-realized at Bittium. The score for each theme in the survey was at least 5.0 on a scale of 1–6.

At Bittium, non-discrimination means equal treatment and ensuring a working culture that is free of discrimination. The company respects its employees' right to organize and it has zero tolerance of discrimination or harassment in any form. No discrimination cases emerged in 2023.

The principles concerning the diversity of Bittium's Board of Directors are defined in the Corporate Governance Statement. Bittium also wants to present the technology industry as an attractive option for women, who are still underrepresented in this field, and to non-binary persons. For the second consecutive year, Bittium participated in the Shaking Up Tech event, where Bittium's female employees talked to young people in general upper secondary education about their work as a product developer, test engineer or UI/UX designer, for example. Participating in the event supported Bittium's goal of staying on the minds of young people as an interesting employer and to increase awareness of the diverse nature of the technology industry. Several visits to educational institutions were organized.

## Managerial Work and Performance Reviews

Bittium has organized monthly Leadership Coffee Sessions for supervisors. These sessions have been continued as one method to support managerial work. In the latter part of the year, the practice was changed to support the ongoing changes in the company so that Managers' Meeting events were held in approximately two-week intervals, and the invitees included not only supervisors but also project managers and other individuals in leadership positions.

In 2023, team members and their supervisors had quarterly discussions (Quarter Chat) in accordance with the performance review model. A key objective in supervisory work has been to give due consideration to individuality, support well-being at work, and build trust in the relationships between managers and employees. The employees have also been offered the opportunity to agree on having separate longer conversations, especially with regard to a long-term competence development plan. From the beginning of 2024, the company is transitioning to annual performance reviews. In addition to these reviews, supervisors and team members can meet one-on-one during the year whenever necessary.

## Well-being and Occupational Safety

At Bittium, the majority of work involves R&D and product (software) development. Therefore, the most significant disability risks include musculoskeletal diseases, coping at work and mental well-being. Project-based work is prevalent, and the schedules and workload may vary greatly depending on the situation.

Bittium uses an early support model. The model is considered to involve the entire work community, and it helps increase openness. From the perspective of work-re-

lated stress, it is important that one is allowed and able to talk about coping, as this enables a change towards a healthier corporate culture. The topics of HR coffee break events have included well-being through nutrition, insomnia, diversity in the workplace community, individual resilience and the resilience of the workplace community. A total of seven coffee break events were held in 2023, and they attracted a lot of interest among the personnel: over a hundred Bittium employees participated in each event.

Psychosocial stress and static work postures were highlighted as issues in a workplace survey carried out by the occupational health care provider. In response to the results, attention was paid to ergonomics in remote work and the rules of working in an open-plan office, among other considerations.

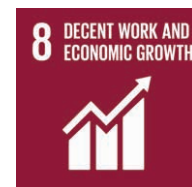
Employee well-being is supported by occupational health care services, which are more extensive than required by law, as well as by other employee benefits. The occupational health care services also include a digital clinic and the opportunities for remote consultations. Employees also have access to the services of an occupational physiotherapist. Bittium supports its employees' community spirit and activities also outside working hours in the form of various clubs, physical exercise and activities.

All Bittium offices have appropriate safety plans in place. Some of the employees perform duties in which it is of particular importance to ensure electrical safety. The risks associated with manufacturing and manual work are a relatively small concern. The Close Call reporting channel in Bittium's intranet enables employees to report potential safety and 'close call' concerns. No observations of close calls were reported via the channel in 2023.

Bittium's HR management and OHS function analyze occupational accidents at regular intervals and whenever particular risks emerge. A total of 11 occupational ac-

cidents were reported in Bittium's Finnish companies in 2023. Nine of the reported incidents were categorized as occupational accidents, with one of them causing temporary disability. Most of the reported accidents occurred during commuting or travel.

## Relevant Sustainable Development Goals by the UN



The measures related to the occupational well-being and promotion of the work ability of Bittium's employees, safety and equality plans, and the offered employee benefits promote sustainable development goal no. 8 (decent work and economic growth). The company's investments in R&D activities and the competence development of its employees promote sustainable development goal no. 9 (industry, innovation and infrastructure).

## Personnel in 2023

At the end of 2023, Bittium had 526 employees in Finland, the United States, and Germany. Of the employees, 99 percent work in Finland. Most of the employees are R&D engineers.

**526**

at the end of the year

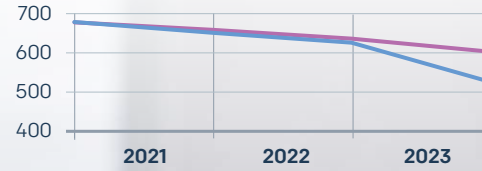
**601**

on average

**85%**

engineers

persons



**AVERAGE AGE**

**46**

**YEARS AT BITTIUM**

**10.8**

**RETIRED**

**1**



**WOMEN**

**14%**

total

**21%**

as supervisors

**25%**

in the Management Group

**20%**

on the Board of Directors

**TRAINING**

**77.2%**

Master's degree/  
Bachelor's degree

**2.1%**

Licentiate/  
PhD

**DAYS OF TRAINING**

**2,214**

total

**5.2**

/person





**FOCUS AREA #2**

## Confidential Customer Relationships and Secure Products

Confidentiality and ensuring information security are an integral aspect of Bittium's sustainability. Bittium helps its customers prevent threats related to information and national security. The company is known for its information security expertise and secure products for the defense and security industry. Information security is also part of ensuring confidentiality across the company's field of operations. For example, in product development service projects carried out for customers, information security is a key consideration right from the start of the design stage. In addition, Bittium's health technology products help its customers in the health care sector by providing them with remote measurement solutions in response to the constantly increasing cost pressures and efficiency requirements in the health care sector.



In Bittium's operations, confidentiality is an element of customer relationships, products, services, and working methods. Trust and information security are key dimensions of Bittium's ability to produce reliable and secure communications and connectivity solutions as well as mobile information security solutions and provide health technology products and solutions for the company's customers.

The changed global situation and the resulting changes in the operating environment have been taken into account, and operations have been adapted and developed according to the current conditions. Changes in the threat environment and operating environment are monitored and taken into account in activities, methods and measures related to Bittium's information security and overall security.

It is crucial to take information security into consideration across the full life cycle of products and services. Bittium's Code of Conduct is also an integral element of the company's secure and responsible way of working with customers and other stakeholders.

Bittium responds to the constantly growing and changing information security requirements by training employees and by participating in Finnish, European, and international information security development projects.

## Information Security Management

Information security and safety are integral aspects of Bittium's day-to-day operations. The company's operations are managed in accordance with an information security management system. Information security objectives, responsibilities, and the allocation of resources to activities are specified in the system.

The management system includes information security-related policies, guidelines and templates pursuant to the standards and requirements (ISO 27001, Katakri and FSC) as well as the requirements set by the cus-

tomers and law. They cover the information security of all of the company's functions and areas of operation.

Bittium has various technical solutions, methods and operating practices in place with regard to information security. The company's employees have also been trained to bear responsibility for information security and report any information security incidents or threats they observe. The employees receive regular training on operating practices that ensure information security.

Product and life cycle risks are systematically assessed as part of the product development process. With respect to products, Bittium takes into account the safety and information security of materials and components as well as compliance with product liability regulations in the company's target markets.

## Objectives and Sustainable Development 2023

In terms of customer relationships, the key points related to the sustainability theme Confidential customer relationships and secure products concern cooperation, customer understanding and project management, and product and service quality. Customer and project satisfaction is measured through annual surveys, with separate objectives set for each area.

As regards information security threats, the principle of continuous development is applied to products and operations, but the more detailed objectives are the following four points:

1. Compliance of information security certificates and the development of operational security
2. Developing situational awareness regarding security and the capacity to recognize deviations and incidents
3. Developing business continuity management.
4. Improving the information security of own products and development of new technology.

Information security is a competitive factor for Bittium. In this area, Bittium aims to strengthen the company's role in the recognition of information security threats and in the utilization of information together with stakeholders, and the company also aims to participate in the information security development projects and key forums at the EU level and otherwise.

Bittium is also involved in the Finnish Information Security Cluster (FISC), which promotes the utilization of cybersecurity expertise in Finnish society, and the FISC-owned Cyberlab Oy. The members of FISC consist of nationally significant organizations that provide information security and cybersecurity products and services. Bittium has participated in the management of FISC since 2023.

## Customer and Project Satisfaction

Bittium measures both customer and project satisfaction on an annual basis using the Net Promoter Score (NPS) as the indicator. During the year under review, the NPS target for both customer and project satisfaction was 50. The target was achieved in both surveys. The customer satisfaction survey NPS improved and came to 52. The project satisfaction survey NPS was 50, representing a slight decrease from the previous year.

For customer satisfaction, the assessed areas are the smoothness of cooperation, Bittium's ability to understand the customer and general satisfaction with the product quality, whereas for project satisfaction, the key areas are the success of project management, the functioning of technical solutions, quality and the outcome of the project. Both surveys provide information on product and service quality, the measuring criteria of which is the number of severe defects in each business area. No severe quality defects were observed in 2023.

In the customer satisfaction survey, Bittium also collects feedback on the company's values, one of which is trust. In the survey, trust was given a score of 4.4 on a scale of 1–5.

## Information Security Threats

Bittium's information security management system is based on the international ISO 27001 standard. Several audits were also conducted by customers in 2023, and Bittium's audit results were excellent. In a time of changes in the operating environment, our customers have worked with us to verify the sustainability of our operating practices.

The information security environment is constantly changing and developing. During the year under review, Bittium developed its information security observation methods, systems, and operating practices partly as planned and partly in accordance with the changed threat and information security landscape. We also commission third-party assessments and studies relating to methods and systems.

Bittium has not been targeted by cyber attacks that would have affected the organization's functions. Other information security incidents have been minor by nature and they have had no significant effects on Bittium's operations.

In relation to information security, online training has been organized for employees on topics such as recognizing phishing attempts.

We aim to continuously enhance information security awareness by making guidelines and policies clearer, increasing communication and providing regular training to our personnel. Information security training

is provided both at a general level and on a job-specific basis.

## Information Security as a Competitive Factor

Bittium aims to strengthen its role in the recognition of information security threats and in the utilization of information together with the stakeholders, and the company also aims to participate in the information security development projects and key forums of the EU and other parties. Each year, Bittium participates in many important Finnish, European and international research and development projects.

In spring 2023, Bittium received significant funding from Business Finland, which was used to launch the Seamless and Secure Connectivity project. In the future, seamless and secure connectivity will require interoperability between various networks in the field of public, private, and related applications. The number of different terminal devices in the network, such as sensors, mobile devices and IoT devices, is growing very quickly, and the importance of their end-to-end information security is growing substantially. Seamlessness is enabled, for example, by utilizing alternative connectivity technologies and mobility solutions at the same time, so that the secure connection remains uninterrupted during the entire communication. At the same time, the development of medical remote diagnostics, from devices to services, promotes cost-efficiency in the health care industry, faster diagnosis of people's health or related problems, and significantly improves the

eco-efficiency of the environment as it becomes more common. More information on the project is available on the company's website.

In 2023, Bittium again participated in Locked Shields, the world's largest live-fire cyber defense exercise, hosted by the NATO Cooperative Cyber Defence Centre of Excellence (CCDCOE). The exercise had over 3,000 participants from 38 countries. The exercise involves protecting real computer systems from real-time attacks, and simulating tactical and strategic decision-making in critical situations. Locked Shields is a Red Team vs Blue Team training exercise in which the Blue Teams are composed of NATO CCDCOE member states and partner nations. In addition to defending systems, teams must report incidents, execute strategic decisions, and solve forensic, legal, and media challenges. The plan for the training exercise was created by 400 organizers who created over 5,500 virtual systems for the purpose.

The 5G Compad (EDF, European Defence Fund) project that began in 2022 continued in 2023. The aim of the project is to enable secure tactical communication solutions in the integration of defense infrastructure and 5G networks.

## Product Information Management

Most of Bittium's product information has been migrated to the company's new product information management system, but this work will still continue in 2024. Prod-

6

### CERTIFIED SYSTEMS IN USE

#### Quality Systems

- ISO 9001, ISO 13485 and AQAP 2110

#### Environmental systems

- ISO 14001, ISO 50001

#### Information security systems

- ISO 27001, Katakri auditing and various facility security approvals

494

### STANDARDS AND DIRECTIVES OBSERVED

#### Of which observed in sustainability efforts

- OHSAS 18001, SA8000, GRI G4, Electronics Industry Citizenship Coalition (EICC), Ethical Trade Directive (ETI), Conflict Mineral (USA, EU)
- SCIP, EU ROHS(I,II,III), Reach, WEEE, Regulation on Waste, ErP (Energy-related Product), EU Taxonomy Regulation, Battery Directive, Packaging Directives

uct information management supports the reporting of compliance with existing standards and preparations for future regulations, such as the digital product passport, which will increase the transparency of product information and promote the circular economy.

## Systems and Standards

Customers increasingly expect Bittium's products and working methods to be standardized and certified. Standardization also makes it easier to promote global exports.

Bittium had six certified systems in use at the end of 2023. All in all, more than 400 different standards are observed in Bittium's operations, approximately 120 of them on a daily basis. All of Bittium's certified management systems are audited by an external party on an annual basis.

Bittium has certified quality management systems for medical devices, such as a quality management system for medical devices that satisfies the requirements of the Medical Devices Regulation (MDR) (EU) 2017/745 and is certified in accordance with the Medical Device Single Audit Program (MDSAP) and the ISO 13485 standard. In late 2022, Bittium obtained MDR-compliant certification for the Bittium Respiro home sleep apnea test device and the Bittium Respiro Analyst software used to analyze the results. Bittium progressed according to plan in MDR approval processes in 2023. The products are tested, verified and approved as part of the R&D process by both

internal and external auditors. For example, in Europe, the products are required to carry the CE label and the related Declaration of Conformity (DoC).

The company's product development projects are also audited in accordance with the PSSL (Product Safety, Security and Liability) audit procedures as part of Bittium's End Product Process (EPP) requirements. Employees receive PSSL product liability training.

## Relevant Sustainable Development Goals by the UN

Bittium's medical technology products, which improve modern healthcare and provide safety, efficiency, and cost savings, support sustainable development goal no. 3 (good health and well-being).





**FOCUS AREA #3**

## Corporate Citizenship and Sustainable Business Practices

Good governance and ethical business practices are the foundation for all of Bittium's activities. The company's businesses are subject to strict regulation. Trust is one of Bittium's values and a cornerstone of the company's DNA. Our customers can count on us to respect the confidentiality of our customer relationships. For its broad network of partners and stakeholders, Bittium wants to be a partner with which dialog is easy and solution-oriented.

**At Bittium, sustainable corporate citizenship** means that sustainable business practices are strengthened throughout the value chain, with positive impact created in society at both the local and global level.

Bittium is a reliable local partner and employer, which engages in active and open dialogue with its stakeholders, acts in accordance with its harmonized operating principles, creates added value for its shareholders, and seeks working methods and solutions that promote sustainable development. Bittium develops its stakeholder relationships in a fair and sustainable manner, with the aim of being transparent in all its communication.

Bittium participated in several research and development projects in 2023. The most significant of these was Seamless and Secure Connectivity, which is a Leading Company project funded by Business Finland. The four-year project led by Bittium will last until 2026. Its goal is to enable trustworthy, secure, and resilient end-to-end connectivity architectures and products including life-cycle services in various domains.

Since 2023, Bittium has been a Board member of ITEA, which is part of the EU's EU-REKA framework. The ITEA cluster has an industry-driven focus on software RD&I, particularly in the areas of smart mobility, health care, smart cities, energy, manufacturing, engineering, safety, and information security.

In March 2023, Bittium deployed a whistleblowing channel that satisfies the requirements of the Whistleblowing Directive. The company has specific processes for monitoring and handling whistleblow-

er reports to ensure that they are investigated quickly and confidentially, protecting the identity of the whistleblower. No reports were received via the whistleblowing channel during the year.

## Objectives and Their Achievements in 2023

In 2023, the key perspectives in the focus area of Corporate Citizenship and Sustainable Business Practices were reducing the risk of unethical conduct, supply chain sustainability, anti-corruption and the development of stakeholder cooperation.

Bittium published its new strategy in the latter half of 2023. Consequently, the decision was made to postpone the updating of the Code of Conduct to 2024, at which time all of the company's policies will be reviewed in relation to the new business model. The existing Code of Conduct is used in contract negotiations with manufacturing partners and component suppliers.

The company's new employees are familiarized with the Code of Conduct during their first month with the company (target: 100%). Self-study materials on the Code of Conduct will be updated when the Code of Conduct itself is updated in 2024.

The company's anti-corruption training package was updated in 2023 and will be deployed in 2024.

Preparations were made for the implementation of a stakeholder survey in 2023, but the decision was made to conduct the survey in 2024 as part of Bittium's double ma-

teriality analysis. Stakeholder cooperation measures are described in more detail below.

## Developing Stakeholder Cooperation

Bittium's operations affect multiple stakeholders, with the company's key stakeholders being shareholders, customers, employees, partners and other suppliers as well as the public sector. Developing even more open dialog between stakeholders supports the development of Bittium's operations, products and solutions, while it helps find solutions for societal challenges. In the fall of 2023, Bittium organized a Capital Markets Day targeted at investors and analysts. This coincided with the publication of the company's new strategy and business model. Approximately 40 people attended the event in person, with another 374 in attendance online. The recording of the event had been viewed 786 times by the end of 2023.

Bittium organized a Partner Days event for its partners in the Medical business segment. At the event, Bittium launched a partner program aimed at increasing and strengthening dialog with partners and engaging the commitment of partners so that they are even more integrated into Bittium's product distribution chain. The next Partner Days event will be organized in early 2024 in the Defense & Security business segment.

From the perspective of Bittium's customers, export control constitutes an important part of operations and a precondition for successful cooperation with the authorities

as well as customers. Bittium promotes the sustainable export of Finnish technology by closely monitoring the changing legislation in the various market areas and by complying with legal provisions. The changed geopolitical situation has increased the number of export license applications filed by Bittium. Export control procedures have been further specified in cooperation with the authorities.

After the COVID-19 pandemic, Bittium has been able to resume visits to educational institutions, which are important to the company. The visits support the work of schools and educational institutions and future competence development.

## Compliance with Requirements, Good Governance and Anti-corruption Measures

Bittium has customers in both the public and the private sector. The business environment involves constant changes in legislation and regulation, as well as increasing requirements from the stakeholders concerning sustainable operations and risk management. Bittium is committed to acting in accordance with legislation and regulations and adhering to ethical business practices in all its operations. Bittium has zero tolerance of bribery and corruption. The company aims to ensure ethical business practices and compliance with the corporate culture and increase awareness of sustainable business practices through training. Bittium's corporate culture is based on

openness and commitment to common values.

The management of Bittium Corporation is governed by the Articles of Association, Finnish law, and Bittium's governance guidelines. Bittium publishes on an annual basis a corporate governance statement, as required by the Corporate Governance Code for listed companies published by the Securities Market Association. The statements and further information on the company's governance are available on Bittium's website.

The key objectives and requirements related to sustainable business practices, good governance, internal control, and risk management are specified in the operating principles and the Internal Control Framework, which includes instructions, guidelines, and principles for internal control and risk management, which are separately approved by the Board of Directors. Compliance processes are in place at every organization level in order to ensure compliance with the applicable laws, regulations, internal guidelines, ethical values, and sustainable business practices. The company's management and businesses are responsible for monitoring the legislation and other regulation in their own areas and for communicating any changes to the organization. The members of the Management Group are responsible for arranging appropriate control and compliance training in their units. The company's Chief Legal Officer coordinates the compliance processes in terms of adequacy and compliance.

Bittium expects that its employees and partners are committed to the company's anti-corruption policy. Mandatory training on anti-corruption measures is provided for employees as part of the orientation training, with all new employees completing the related online self-study module in 2023. No irregularities were observed and no corruption cases were confirmed during the year.

## Sustainable Purchasing

Bittium's products contain a range of electronic, electromechanical and mechanical components. The sustainability of the purchasing chain is ensured, for instance, through material and component supplier requirements and material assessments.

The company's service and product suppliers are required to undertake to ensure sustainable business practices and they must comply with Bittium's Code of Conduct, Supplier Code of Conduct, and the Bittium Supplier Manual. The latest versions of these documents are available on Bittium's website. The guidelines include the key policies, practices, and requirements for Bittium's supply chain. The requirements are related, among other things, to business practices, anti-corruption measures, environmental issues, occupational safety, and human rights, including material-specific requirements. Compliance with the guidelines was assessed in 2022 through supplier self-evaluation and audits of critical suppliers.

Ensuring that all employees are committed to the principles of sustainable purchasing is an important part of ensuring the sustainability of the supply chain. Sustainable

purchasing is a part of Bittium's mandatory environmental training, which employees complete through self-study.

The vast majority of Bittium's employees work in countries with progressive human rights legislation. The company's approach to human rights issues is described in the Bittium Supplier Manual. During the year, no violations or significant nonconformities related to the use of child labor, forced labor, inappropriate disciplinary action, physical punishment, or health-related discriminatory practices were observed in Bittium's or its subcontractors' operations.

Suppliers are audited according to pre-defined criteria. Audits are carried out either as a self-assessment based on the Bittium Supplier Manual or as an audit conducted by Bittium. In 2023, Bittium focused on deepening its cooperation with critical manufacturing partners and component suppliers to identify common development areas. Bittium has worked on developing a supplier management tool in connection with these efforts.

## Identifying the Origin of Minerals

Bittium's products are made using minerals that may also come from countries that violate human rights or cause environmental destruction by mining such minerals. Bittium urges its suppliers to comply with the legislation on conflict minerals and the relevant recommended reporting practices. This ensures that the minerals used in Bittium's

products do not originate from conflict or risk zones.

Bittium continuously monitors any nonconformities related to conflict minerals with the help of updated requirements, external databases, and the product information management system. The company has also further specified its Responsible Minerals Policy. In 2023, Bittium did not receive any reports on suspicions concerning minerals from conflict areas.

## Avoiding Counterfeit Materials

Counterfeit materials are any materials whose origin, age, composition, configuration, certification data, certification status or other feature is presented falsely and with misleading markings on the material, packaging, or container. Bittium is aware of the risks associated with counterfeit materials, both when purchasing materials as ready-to-use components and when using the previously mentioned raw materials. Bittium is committed to conducting the necessary assessments to avoid using counterfeit materials in its products. The purpose of efficient supplier reporting systems is to avoid the use of counterfeit materials. Supplier reporting methods focus on monitoring the various purchase process phases starting from the initial supplier selection. Bittium's employees are trained to identify counterfeit materials. Regarding counterfeit materials, Bittium's customers also expect that information is managed in real time to the maximum extent possible. By

combining the data obtained through product information management and material information databases, Bittium is able to ensure for its customers up-to-date and appropriate information management. The relevant information is documented in the Product Lifecycle Management (PLM) system. No counterfeit materials were found in Bittium's products in 2023.

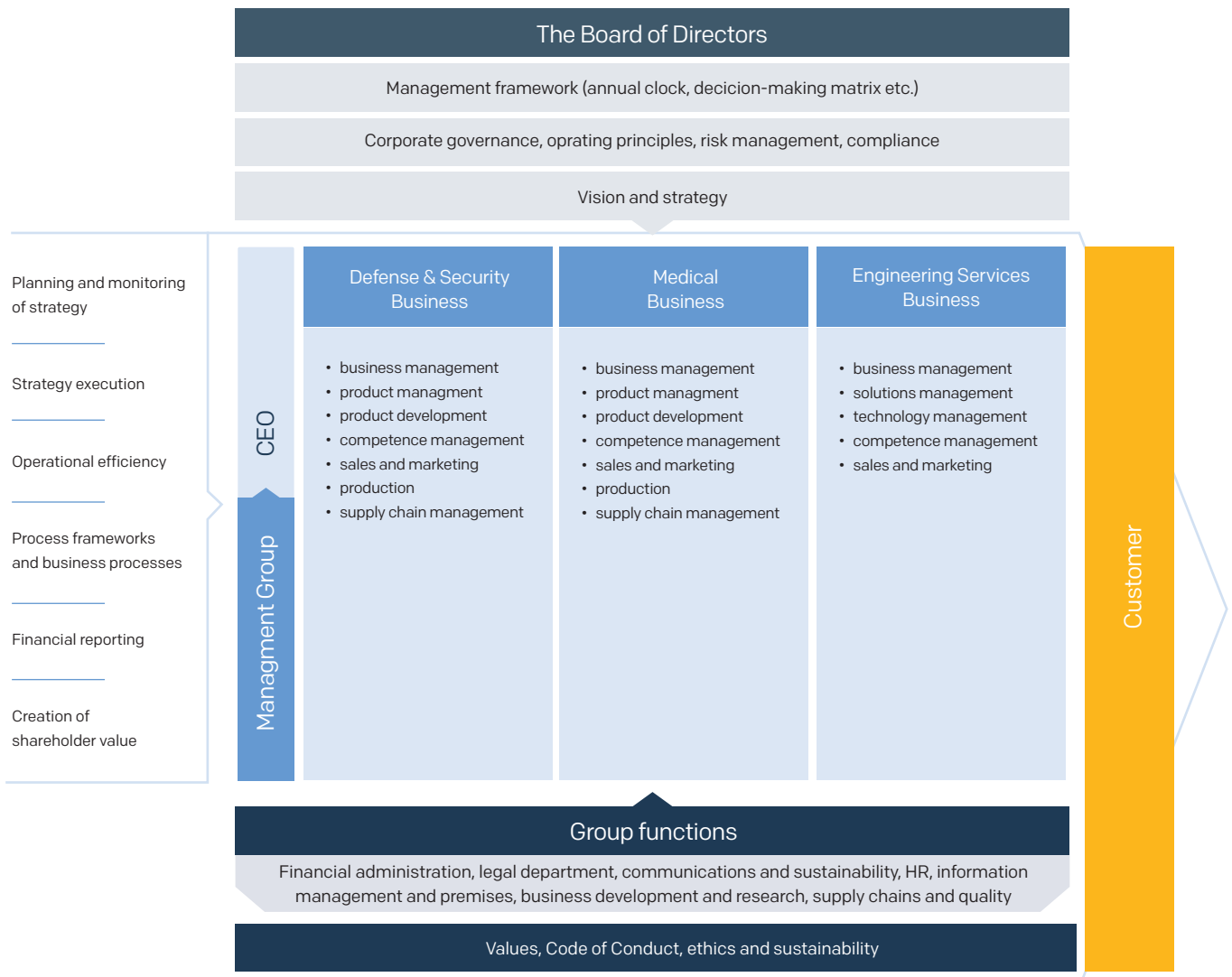
## Relevant Sustainable Development Goals by the UN



Bittium’s actions related to sustainable corporate citizenship, good governance, and anti-corruption measures promote, in particular, the sustainable development goals no. 8 (economic growth and employment), no. 12 (responsible consumption), no. 16 (peace and justice) and no. 17 (partnership). Sustainable purchasing, avoiding minerals from conflict areas, and counterfeit materials support goal no. 8 (economic growth and employment). Reporting on the planning, implementation, and results of sustainabil-

ity actions in the annual sustainability report and the systematic planning of sustainability work and reliable reporting support the objective to ensure the sustainability of consumption and production methods.

### Corporate governance, risk management and compliance at Bittium









**FOCUS AREA #4**

## Environment

Environmental sustainability is reflected in Bittium's small and big decisions in product planning and assembly and on the company's premises. In its environmental actions, Bittium focuses on improving the efficiency of its operations and on using lower-emission energy sources. Bittium's footprint is reduced by the longer useful life of products and the development of recycling as well as improvements in resource efficiency.

**Environmental sustainability** at Bittium is guided by the company's environmental policy, legislation on environmental protection and sustainable development, and various international principles and customer requirements. At Bittium, environmentally sustainable operations mean responsibility for curbing climate change and the development of resource-efficient solutions. The most notable environmental impacts of Bittium's products occur during the last stage of the life cycle, that is, recycling.

In addition to reducing the environmental impacts of its own operations, Bittium seeks to actively reduce environmental impacts throughout the value chain. In 2023, Bittium continued to prepare for the introduction of the digital product passport as regards Bittium's products. To this end, Bittium has increasingly collected information on its products in the company's product information management system. The digital product passport is part of the new circular economy package published by the European Commission.

The EU's Carbon Border Adjustment Mechanism (CBAM), which took effect in October 2023, is intended to prevent carbon leakage, which refers to emission-causing activities being moved outside of the EU. The mechanism applies to CBAM goods that are imported into the EU, including iron, steel, and aluminum products. Bittium has some products for which the company is required to report in accordance with the CBAM disclosure requirements on the year 2023.

## Management of Environmental Sustainability at Bittium

Bittium has a certified environmental management system, which applies the most recent version of the ISO 14 001 standard. The environmental management system enables Bittium to improve the management of its environmental impacts and the level of environmental work. The following viewpoints are the core of the management of environmental work and environmental sustainability at Bittium:

- Monitoring and observing amendments to the laws and regulations concerning environmental protection and sustainable development. The use of energy-efficient solutions in R&D (ecological design) and at business premises is also included.
- Minimizing the environmental impacts of the production, use and disposal of products. The development of instructions and practices related to ecological design supports these principles.
- Encouraging suppliers and partners to implement environmental management systems. This practice supports the realization of the principles aimed at limiting the use of hazardous substances.
- Developing energy efficiency through continuous improvement. Two energy auditors approved by the Energy Authority conduct annual on-site audits.

Bittium operates in a strongly regulated business environment. The company regularly monitors the international environmental requirements that govern its products as well as the local regulations derived from these, with all suppliers also required to comply with them. The provisions of the ROHS directives (I, II and III), the REACH regulation (on hazardous substances) as well as the WEEE (recycling of waste electronic and electrical equipment) directive have been applied in Bittium's product design since 2002.

The provisions of the Ecodesign regulation framework are applied in Bittium's product design and product development. The secure Bittium Tough Mobile 2 smartphone satisfies the requirements of the Regulation, which entered into force in 2023. In its product design, Bittium also takes into account the requirements of the Medical Devices Regulation (MDR).

Bittium aims to offer halogen-free products whenever alternatives to halogen components that meet the relevant functional requirements are available. Bittium's halogen-free statement conforms to the IEC (International Electrochemical Commission) definition of halogen-free materials (IEC 61249-2-21).

## Environmental Objectives and Sustainable Development 2023

Bittium monitors three environmental indicators measuring the environmental effects of its operations, that is, the development of the carbon dioxide equivalent (kgCO<sub>2</sub>e), the development of energy consumption (MWh) and the percentage share that renewable energy accounts for of total energy consumption.

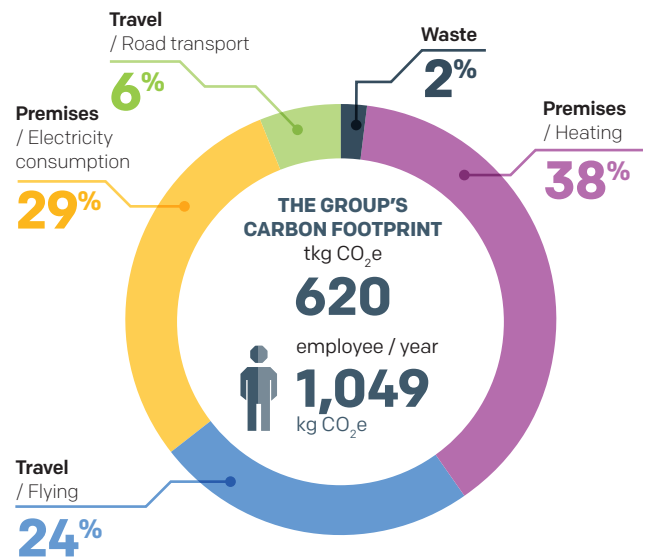
### Environmental Sustainability Indicators

The company continuously monitors the level of environmental protection. The following indicators have been selected as the key environmental sustainability indicators.

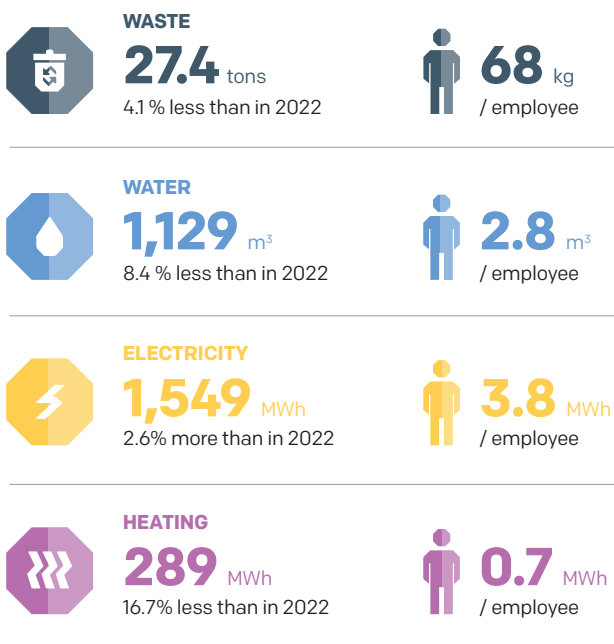
- Travel (air and road transport)
- Premises (electricity consumption, heating and waste)

In 2023, the volume of waste remained unchanged from the previous year. Water consumption decreased by 8.4% and heating costs by 16.7% year-on-year. At the same time, electricity consumption increased slightly, by 2.6% from the previous year.

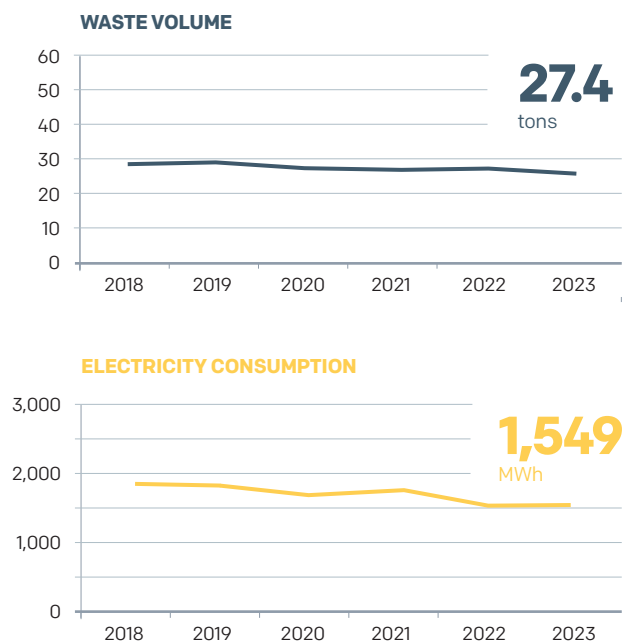
The total amount of travel increased during the year under review because the scope of reporting was expanded to include train journeys, which were not included in the previous year.



Bittium's Environmental Sustainability Indicators in 2023, Oulu Office



Environmental Sustainability Indicators 2018–2023 (Trend), Oulu Office



## Maintaining the Waste Recovery Rate at Over 95 Percent

Most of the waste generated by Bittium is packaging waste. There have been no significant changes in the volume of waste since 2018. Although production volumes have increased, a larger proportion of the manufactured components and partial assemblies are delivered directly to factories, which reduces the amount of waste generated at Bittium. The simplification of packaging modules has also helped reduce waste. There were no significant changes in the amount of hazardous waste compared to the previous years.

In addition to minimizing waste, Bittium aims to forward all waste to be reused or recovered as appropriate. Design and material recycling are promoted in product design and development in the spirit of the circular economy, while innovating sustainable solutions with partners. Bittium has implemented waste recycling to the maximum extent possible, with the waste recycling rate being 99.9% in 2023.

## Developing the Energy Efficiency of Premises and Increasing the Share of Renewable Energy

The carbon footprint of Bittium's premises and facilities represents 67% of the total carbon footprint. Improving energy efficiency is one of Bittium's key objectives in terms of the reduction of carbon footprint. District heating from the local energy supplier is not yet fully carbon neutral, but production utilizes biofuels and recycled fuels sourced from nearby areas. According to the electricity supplier, the distribution of the production methods for the purchased electrical energy is such that 38% comes from renew-

able sources, 24% is emission-free and 38% comes from fossil sources.

Renewable energy sources accounted for 42% of heat energy and 36% of electrical energy. At its highest during the year, the share of solar power of the electricity consumed at the Oulu office was 14% (in 2022: 13%, 2021: 13%, 2020: 13%, 2019: 11.9%).

## Reducing Carbon Footprint

Bittium calculated the Group's total carbon footprint for the sixth time. The carbon footprint calculations are mainly based on process data, which was obtained from the databases of Bittium and its cooperation partners (such as product suppliers and the electricity supplier). The calculation includes direct emissions and the indirect emissions of purchased energy (Scope 2). In addition to the above, the reported indirect emissions include the indirect emissions of business travel and electricity production for the past year. With the carbon footprint measurement, Bittium monitors, in particular, the efficiency of the shift to renewable energy sources and the efficiency of solutions that are more sustainable in terms of climate.

Our carbon footprint target for 2023 was <1,500 kg CO<sub>2</sub>e/employee. Our total carbon footprint was 620 tCO<sub>2</sub>e, or 1,049 kg CO<sub>2</sub>e/employee (2022: 707 tCO<sub>2</sub>e, 1,119 kg CO<sub>2</sub>e/employee; 2021: 719 tCO<sub>2</sub>e, 1,096 kg CO<sub>2</sub>e/employee; 2020: 753 tCO<sub>2</sub>e, 1,130 kg CO<sub>2</sub>e/employee).

Bittium reviewed its travel policy in 2023 in accordance with the company's emission reduction target. The scope of reporting on travel was expanded during the year to include different forms of transport. For example, train journeys are included in the reporting on the year under review. Consequently, the emissions associated with travel are not directly comparable between the year under review and the preceding year.

Technologies supporting sustainable development promote the reduction of customers' carbon footprint and enable influence on product life cycle emissions. For example, Bittium's solutions responding to the needs for remote diagnostics enable emission reductions throughout the value chain by reducing the need to visit health care facilities in person.

\* When calculating carbon footprint, Bittium uses the exact data on the properties owned by it and the data available on properties leased by Bittium. This applies, for example, to the available waste figures. Bittium also takes into account the coefficients published by Statistics Finland concerning the average CO<sub>2</sub> emissions of district heating production in Finland, for which an average is calculated for the past three years. For this reason, there may be minor variation in the carbon footprint comparison figures at the annual level.

## Circular Economy as the Starting Point for Bittium's Product Design

Bittium's business is mainly focused on product design, sales and marketing, while its manufacturing partners are responsible for product assembly. The environmental effects of products emerge at various phases of the product life cycle: procurement of raw materials, product manufacturing, transport, product use or product disposal. However, a significant part of the environmental effects during a product's life cycle can be influenced through product design and design decisions. The inclusion of environmental aspects in the product design processes creates a foundation for all product design and development at Bittium.

Bittium's approach involves an established model of operation concerning product materials and their handling: more with less. Environmental objectives are reached by maximizing the service life and recyclability of products, for example, by influencing the amount of materials used in the manufacturing of products. Environmental effects can be reduced through design decisions, for example, by reducing the consumption of raw materials, through the lengthening of life cycles, by reducing the use of hazardous materials and by ensuring that products can be recycled. The transition towards a carbon-neutral circular economy requires cooperation and innovation. In 2023, Bittium engaged in discussions with its supply chain partners on carbon footprint calculation and recycling.

Bittium's products are designed to have long life cycles and to be repairable and recyclable. For example, reliability, delivery reliability and maintenance services, including service and update work, must be guaranteed for many defense industry products for de-

grades. Material cycles are created in relation to product repairs or returns related to the product life cycle, for example. The information security risks associated with the products must also be taken into account in this context. Bittium disassembles decommissioned products, sorts the components and recycles them appropriately.

The rapid development of regulation and materials requires that Bittium is capable of adjusting its product design in accordance with the changes required by the business environment. Bittium has responded to the requirements, for example, with re-design of products; the long service life of products provides an opportunity to create environmentally sustainable solutions to replace product modules with outdated environmental attributes. When old and new technology is combined, the old product platforms are developed in a more environmentally friendly direction, with the requirements of the most recent regulations taken into account while making no compromises on the service life.

## Ecodesign Accelerates Sustainable Product Design

In early 2022, the EU's Ecodesign Directive entered into force in the EU area, with the Directive specifying the ecological demands to be applied in the design and development of products that use energy. The Directive promotes sustainable development by improving energy efficiency and the level of environmental protection, while also improving the security of energy supply. The scope of the Directive's application expanded in 2023 to also include the effects of software production so that they are taken into account in the life cycle assessment concerning the ecological footprint of products. Bittium products meet the requirements of the Directive.

The EU's proposed regulation on the ecodesign of sustainable products also includes a digital product passport, which would enable information to be collected of the various phases of value chains, such as product use, maintenance and recycling. During the year, Bittium documented a majority of its product information to correspond to the requirements of digital product passports. The company aims to have all of its products entered in the Product Lifecycle Management (PLM) system by the end of the first half of 2024.

## Relevant Sustainable Development Goals by the UN



Bittium's measures related to ecological product design, sustainable consumption and production methods and energy and resource efficiency promote, in particular, the sustainable development goals no. 8 (decent work and economic growth) and no. 12 (responsible consumption). Resource efficiency is promoted in consumption and production through operations that comply with the environmental standard. Ecological design is the starting point of product development and an important part of sustainability work at Bittium. Special attention is paid to the use of renewable energy, waste recovery rate and the reduction of waste at our operating locations and the results are reported as part of Bittium's sustainability report.



# Reporting

## Reporting Basics and Principles

### Scope of Reporting

This sustainability report published as part of the annual report is the sixth extensive report on the management and implementation of sustainability at Bittium. Bittium updated its sustainability program in 2022. In accordance with the updated program, Bittium has implemented sustainability-related themes by developing metrics and providing more extensive information on the impacts of its operations. The sustainability program is an updated version of the 2020–2022 sustainability program, which was based on a materiality analysis carried out in 2019. The aim of the materiality analysis was to establish an understanding of the stakeholders' views regarding Bittium's previously selected focus areas in sustainability. The focus area objectives and metrics of the sustainability program were updated to strengthen the company's objectives related to being a responsible corporate citizen in society.

To enable comparison, Bittium's sustainability report is based on the Global Reporting Initiative (GRI) Standards framework. The table at the end of the report contains references to the relevant elements of the GRI Standards framework.

The report covers Bittium's four sustainability focus areas and a description of financial effectiveness. The financial data is collected from Bittium's financial information systems, and the majority of personnel data is from HR management systems. Environmental figures are collected from the company's own systems and from reports provided by service providers, such as the company's travel agency and waste

management provider. The reported financial figures are based on Bittium's audited financial statements from 2022 and 2023.

The reporting model was selected on the basis of Bittium's sustainability principles, taking into account the GRI framework and the focus areas of Bittium's business: wireless, secure communications in B2B operations. Bittium has customers both in Finland and in other countries. The operations and most of the personnel are nevertheless located in Finland.

The sustainability report will be published online in electronic format in connection with the Group's annual report at [www.bittium.com](http://www.bittium.com) and <https://annualreport.bittium.com>.

### Scope of the Report

The period covered by the sustainability report is the same as the financial period, January 1–December 31, 2023.

The company reports the consumption of electricity, heat and water for all of its owned premises as well as those offices in Finland where the company is on rent and the company only uses a part of the premises in the office building. In addition, the company separately reports environmental responsibility metrics (waste, water, electricity, heating) from the Oulu location. To calculate the carbon footprint, the company uses, in addition to all of the above-mentioned information, emissions from travel, which the company calculates from its own systems, as well as from emission reports obtained through the travel agency.

The report does not cover all suppliers or service providers. In other respects, the report covers all the operations of Bittium Corporation and its subsidiaries.

## Reporting Principles and Guidance

Financial reports are governed by the International Financial Reporting Standards (IFRS), and governance reports comply with the legislation on listed companies and the Finnish Corporate Governance Code that applies to listed companies. The reported financial data is based on audited financial statements.

## Principles and Practices for External Verification

The GRI Standards were applied in the preparation of the 2023 report. The sustainability report has not been verified by an independent third party. The figures presented in the "Financial effectiveness" section are based on the Group's audited financial statements.

In 2023, Bittium began preparing for reporting in compliance with the EU Corporate Sustainability Reporting Directive, and these preparations will continue in 2024. The company will conduct a double materiality analysis and update its sustainability program in accordance with the results of the analysis.

## Bittium's Sustainability Contact Person:

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Vice President,  
Communications and Sustainability  
[karoliina.malmi@bittium.com](mailto:karoliina.malmi@bittium.com)



## GRI Content Index

Bittium's Annual Report 2023 has been prepared with reference to the GRI Universal Standards 2021. The sustainability reporting covers the selected General Disclosures as well as the Topic Standards Bittium has deemed material and which reflects best its

economic, social, and environmental impacts in the topics. The GRI 1: Foundation 2021 Standard's key concepts for defining report content have been taken into account in the preparation of sustainability information. The topic standards are the year 2016 versions unless otherwise stated next to the standard number.

Statement of use: Bittium Oyj has reported the information cited in this GRI content index for the period January 1, 2023 to December 31, 2023.

*GRI used: GRI 1: Foundation 2021*

Disclosure	Reporting contents	Location in Bittium's annual reporting	Additional information
<b>GRI 2: General Disclosures</b>			
2-1	Organizational details	Business and Operating Environment, p. 10	Bittium is an international technology company that offers socially useful technical innovations that improve communication connections, create security and promote healthcare. The company's offices are located in Finland, Germany, and in the USA. More information about the offices is on the website: <a href="http://www.bittium.com/about-bittium/facts-figures/bittium-locations">www.bittium.com/about-bittium/facts-figures/bittium-locations</a>  Bittium Corporation's articles of association are available on the website: <a href="http://www.bittium.com/investors/corporate-governance/articles-of-association">www.bittium.com/investors/corporate-governance/articles-of-association</a>
2-2	Entities included in the organization's sustainability reporting	Sustainability at Bittium in 2023; Reporting, p. 88	
2-3	Reporting period, frequency and contact point	Sustainability at Bittium in 2023; Reporting, p. 88	
2-4	Restatements of information	Sustainability at Bittium in 2023; Reporting, p. 88	There are no restatements of sustainability information in this report.
2-5	External assurance	Sustainability at Bittium in 2023; Reporting, p. 88	
2-6	Activities, value chain and other business relationships	Business and Operating Environment, Products and Services p. 14; Sustainability at Bittium in 2023; Bittium's value creation model p. 56, Sustainable Purchasing p. 78	All of Bittium's products are manufactured in Finland by manufacturing partners. The products consist of various electronic and mechanical components, whose suppliers are both foreign and Finnish significant players in their respective regions. Bittium's most significant partners in the distribution network are Bittium's partners operating in different product and service areas, such as Tutus Data AB in Sweden for Bittium Tough Mobile™ 2 smartphones in Sweden and Technomed Ltd for Bittium Faros™ devices in the United Kingdom.
2-7	Employees	Sustainability at Bittium in 2023; Innovative and Developing People, p. 66–71	The total number of employees at the end of 2023 was 526, of which 74 (14%) were female and 452 (86%) were male. There were 513 employees in permanent employment, of which 74 (14%) were female and 439 (86%) were male. The proportion of fixed-term employment contracts was 0.2% for women and 2% for men. The proportion of part-time employment contracts was 4% for both women and men. The proportion of full-time employment contracts was 96% for both women and men. 2% of employees worked on zero-hour contracts (2% female, 3% male). There was a decrease of 99 persons in the number of employees during 2023, of which 61 were dismissed as a result of the change negotiations.
2-9	Governance structure and composition	Corporate Governance, Corporate Governance, Bittium Corporation, Board of Directors, Board Committees p. 39;	

Disclosure	Reporting contents	Location in Bittium's annual reporting	Additional information
<b>GRI 2: General Disclosures</b>			
2-10	Nomination and selection of the highest governance body	Corporate Governance, Principles Concerning Board Diversity, p. 36	The Annual General Meeting is the company's the highest decision-making body, where the company's shareholders participate in the control and management of the company by using their right to speak and vote. The most important tasks of the General Meeting include electing the Board members. The Board chooses a Chairman among its members.
2-11	Chair of the highest governance body	Corporate Governance, Corporate Governance, Bittium Corporation, Board of Directors, p. 35	The Chairman of the Board of Directors of the Bittium Corporation is independent of both the Company and its significant shareholders.
2-12	Role of the highest governance body in overseeing the management of impacts	Sustainability at Bittium in 2023; Sustainability Management, p. 58, Corporate Governance, Annual Clock 2022, p. 37	Bittium has a separate sustainability working group that develops, monitors, and evaluates issues related to sustainability. The working group is responsible for sustainability risk management and steering, as well as the company's sustainability reporting. The Audit Committee of Bittium Corporation's Board of Directors deals with sustainability issues regularly and when necessary. Bittium Corporation's Board of Directors deals with sustainability issues based on the presentations of the management team and examines sustainability effects as part of its supervisory role. The sustainability report describes the methods that ensure sufficient care applied to the areas of sustainability. In addition, the description of risk management and processes related to the company's operation and operating environment is defined as part of the Corporate Governance system report.
2-14	Role of the highest governance body in sustainability reporting	Sustainability at Bittium in 2023, Sustainability Management, p. 58	
2-15	Conflicts of interest		The Board of Directors of Bittium Corporation and the relevant committee carefully evaluate the possible conflicts of interest of each member of the board and/or the relevant committee in the preparation and decision-making work. In a possible conflict of interest situation, the relevant institution ensures that the members in question do not participate in the preparation or decision-making.
2-19	Remuneration policies	Bittium Corporation's Remuneration Report, Remuneration Report from the accounting period of 2023	Bittium Corporation's remuneration policy and remuneration reports are available on the company's website: <a href="http://www.bittium.com/investors/corporate-governance/remuneration">www.bittium.com/investors/corporate-governance/remuneration</a>
2-20	Process to determine remuneration	Bittium Corporation's Remuneration Report	<p>The Annual General Meeting decides on the remuneration of the members of the Board of Directors. Remuneration of the Board of Directors, the CEO, and any deputy CEO must be in accordance with the Company's latest remuneration policy. Shareholders discuss the Remuneration Policy at the Annual General Meeting at least every four years and whenever substantial changes are made to it. In a possible conflict of interest situation, the relevant institution ensures that the members in question do not participate in the preparation or decision-making. The same principles are followed in the assessment of possible conflicts of interest as are followed when assessing board members' conflicts of interest in connection with decision-making. The Board of Directors annually evaluates the possible need for changes to the Remuneration Policy. The company may use external experts when evaluating and determining the compensation to be paid to the Board of Directors and the CEO.</p> <p>Bittium Corporation's remuneration policy and remuneration reports are available on the company's website: <a href="http://www.bittium.com/investors/corporate-governance/remuneration">www.bittium.com/investors/corporate-governance/remuneration</a></p>

Disclosure	Reporting contents	Location in Bittium's annual reporting	Additional information
<b>GRI 2: General Disclosures</b>			
2-22	Statement on sustainable development strategy	Sustainability at Bittium in 2023, The CEO's Statement on Sustainability, p. 53	
2-23	Policy commitments	Corporate Governance, Main Features of Internal Control and Risk Management Processes Related to the Financial Reporting Processes, p. 45; Sustainability at Bittium in 2023, Corporate Citizenship and Sustainable Business, p. 76, Sustainability at Bittium, p. 61, Bittium's Ethical Principles and Code of Conduct, p. 59	<p>Bittium follows a responsible business practices and requires it from its suppliers as well. Bittium's ethical principles include aspects of anti-corruption, data protection and security, fair business practices, advertising and competition, corporate citizenship, and protection of intellectual property rights. Collaborators must comply with Bittium's Code of Conduct principles and supplier guidelines and requirements (Bittium Supplier Requirements). The guidelines contain the most important policies, operating methods, and requirements for Bittium's supply chain. The set requirements are related to business practices, anti-corruption, environmental issues, occupational safety, and human rights, including material-specific requirements. The guidelines and principles mentioned above are available on the company's website: <a href="http://www.bittium.com">www.bittium.com</a></p> <p>Bittium has also mirrored the themes of the priority areas of sustainability in the UN's Sustainable Development Goals and identified goals that are already taken into account and whose realization is promoted in the company's operations.</p>
2-24	Embedding policy commitments	Corporate Governance, Main Features of Internal Control and Risk Management Processes Related to the Financial Reporting Processes p. 45; Sustainability at Bittium in 2023, Corporate Citizenship and Sustainable Business, p. 76, Sustainability at Bittium, p. 61, Bittium's Ethical Principles and Code of Conduct, p. 59	Bittium takes into account the due diligence obligation in its operations. Together with its supply chain partners and other stakeholders, Bittium strives to identify both actual and potential harm to the environment and people, including human rights, in the entire value chain. As part of responsible management and operations, the company prevents and mitigates harm, monitoring the effectiveness of actions related to the duty of care. Bittium's external and internal stakeholders also use the Whistleblowing notification procedure, which aims to reduce the risks that may be faced by the company.
2-26	Mechanisms for seeking advice and raising concerns	Sustainability at Bittium in 2023, Corporate Citizenship and Sustainable Business, p. 76	Good governance and ethical operating methods are the basis of Bittium's operations and a prerequisite for business. The trust of customers and other stakeholders in Bittium, product quality, and responsible development are of primary importance to the company. The company has compliance processes at every organizational level to ensure that applicable laws, regulations, internal guidelines, responsible business requirements, and ethical values are followed. Bittium's personnel and external stakeholders use feedback and reporting channels as well as a reporting channel for detecting abuses. Personnel has been instructed on their use of Bittium's intranet and in orientation training.
2-27	Compliance with laws and regulations	Report by the Board of Directors; Statement of Non-Financial Information	Bittium Corporation has not incurred legal sanctions for its activities during 2023.
2-28	Membership associations		Teknologiateollisuus ry
2-29	Approach to stakeholder engagement	Sustainability at Bittium in 2023, Sustainability Management, p. 58	

Disclosure	Reporting contents	Location in Bittium's annual reporting	Additional information
<b>GRI 3: Material topics</b>			
3-1	Process to determine material topics		<p>Bittium's sustainability program is based on a materiality analysis carried out in 2019, on the basis of which the focus areas of sustainability have been defined. The program is built on the development goals and measures of focus areas and the metrics defined for them. The process of defining Bittium's material topics, the materiality analysis, is described on the company's website: <a href="https://annualreport2019.bittium.com/sustainability_report/focus_areas_in_sustainability">annualreport2019.bittium.com/sustainability_report/focus_areas_in_sustainability</a></p> <p>With the update of the sustainability program, the goals and metrics of the focus areas were specified, and yearly sub-goals were set for the themes. The goals and metrics of the sustainability program for the years 2022–2025 are described in the context of the sections dealing with each focus area of the annual report.</p>
3-2	List of material topics	Sustainability at Bittium in 2023, Innovative and Developing People, p. 66, Trust-based Customer Relationships and Secure Products, p. 72, Corporate Citizenship and Sustainable Business Practices, p. 76 Environment, p. 82	
3-3	Management of material topics	Sustainability at Bittium in 2023, Outputs and effects, p. 57, Innovative and Developing People, p. 66, Trust-based Customer Relationships and Secure Products, p. 72, Corporate Citizenship and Sustainable Business Practices, p. 76 Environment, p. 82	The most significant sustainability effects of Bittium's essential sustainability topics, the management of essential sustainability topics, and the measures related to their management are described in the annual report, in the sections dealing with Bittium's sustainability priority areas. In the future, Bittium will develop reporting related to the management of material topics in accordance with the GRI 3: Material topics standard.

Disclosure	Reporting contents	Location in Bittium's annual reporting	Additional information
<b>GRI 201: Economic Performance</b>			
201-1	Direct economic value generated and distributed	Sustainability at Bittium in 2023, Economic Impact, p. 61	
201-4	Financial assistance received from government	Notes to the Consolidated Financial Statements, 3. Other profits of the business	
<b>GRI 205: Anti-corruption</b>			
205-2	Communication and training about anti-corruption policies and procedures	Sustainability at Bittium in 2023, Corporate Citizenship and Sustainable Business, p. 76	Bittium requires its personnel and partners to commit to the company's anti-corruption guidelines. Mandatory training on anti-corruption activities is organized for personnel as part of the induction program, and in 2023, 77 percent of new employees completed the electronic self-study module included in the training by the end of 2023.
205-3	Confirmed incidents of corruption and actions taken	Sustainability at Bittium in 2023, Corporate Citizenship and Sustainable Business, p. 6	Bittium's personnel and external stakeholders use feedback and reporting channels as well as a reporting channel for detecting abuses. During 2023, Bittium Corporation did not report any corruption suspicions or cases.
<b>GRI 301: Materials</b>			
301-1	Materials used by weight or volume	Sustainability at Bittium in 2023, Environment, p. 82	Bittium does not use paper, cardboard or metal in the production of its products. Bittium reports the amount of material waste and recycling resulting from the use of materials at the locations.
<b>GRI 302: Energy</b>			
302-1	Energy consumption within the organization	Sustainability at Bittium in 2023, Environment, p. 84	
302-4	Reduction of energy consumption	Sustainability at Bittium in 2023, Environment, p. 84	
<b>GRI 303: Water and Effluents (2018)</b>			
303-1	Interactions with water as a shared resource	Sustainability at Bittium in 2023, Environment, p. 84	Reported total water consumption and water consumption per person for Bittium locations. No water is used in the production of the products.
<b>GRI 305: Emissions</b>			
305-1	Direct (Scope 1) GHG emissions	Sustainability at Bittium in 2023, Environment, p. 84; Report by the Board of Directors 2023, Statement of Non-Financial Information, p. 110	Reported carbon footprint. In 2023, Scope 1 carbon dioxide emissions (travel and waste) of Bittium's offices in Finland were 206.8 tCO <sub>2</sub> (204.0 tCO <sub>2</sub> in 2022) and Scope 2 emissions (heating and electricity) were 413.1 tCO <sub>2</sub> e (563 tCPO <sub>2</sub> e in 2022).
<b>GRI 306: Waste (2020)</b>			
306-2	Management of significant waste-related impacts	Sustainability at Bittium in 2023; Environment, p. 85	

Disclosure	Reporting contents	Location in Bittium's annual reporting	Additional information
<b>GRI 403: Occupational Health and Safety (2018)</b>			
403-1	Occupational health and safety management system	Sustainability at Bittium in 2023; Innovative and Developing People, p. 69	
403-2	Hazard identification, risk assessment, and incident investigation	Sustainability at Bittium in 2023; Innovative and Developing People, p. 69	Bittium is constantly developing its occupational safety processes and risk management. More information regarding subcontractors can be found in the Bittium Supplier Manual: <a href="http://www.bittium.com/about-bittium/suppliers/supplier-manual">www.bittium.com/about-bittium/suppliers/supplier-manual</a>
403-3	Occupational health services	Sustainability at Bittium in 2023; Innovative and Developing People, p. 69	Healthcare services that are more extensive than required by law cover 99% of the personnel. Occupational health services as part of compliance with the Customer Liability Act is part of Bittium's subcontracting process.
403-4	Worker participation, consultation, and communication on occupational health and safety	Sustainability at Bittium in 2023; Innovative and Developing People, p. 69	
403-5	Worker training on occupational health and safety	Sustainability at Bittium in 2023; Innovative and Developing People, p. 69	All Bittium locations have appropriate safety plans, and safety issues are taken into account in Bittium's personnel orientation program. Occupational health matters are communicated to the staff regularly.  Subcontracting companies are responsible for the occupational health and occupational safety training of their employees in accordance with their own principles. Bittium trains the subcontractors working at Bittium's premises. Subcontractors working at Bittium's customers' premises are trained by the customer. In other respects, the subcontractors themselves are responsible for the training of their employees.
403-6	Promotion of worker health	Sustainability at Bittium in 2023; Innovative and Developing People, p. 69	
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Sustainability at Bittium in 2023; Innovative and Developing People, p. 69, Trust-based Customer Relationships and Secure Products, p. 72 Corporate Citizenship and Sustainable Business, p. 76,	More information regarding subcontractors can be found in the Bittium Supplier Manual: <a href="http://www.bittium.com/about-bittium/suppliers/supplier-manual">www.bittium.com/about-bittium/suppliers/supplier-manual</a>
403-8	Workers covered by an occupational health and safety management system		All Bittium employees are covered by the occupational health and safety management system.
403-9	Work-related injuries	Sustainability at Bittium in 2023; Innovative and Developing People, p. 69	In 2023, Bittium's Finnish companies did report 0 safety and near-miss findings and 11 occupational accidents, one of which resulted in the short, passing incapacity for work but no liability for compensation according to the Occupational Accidents and Occupational Diseases Act.
403-10	Work-related ill health	Sustainability at Bittium in 2023; Innovative and Developing People, p. 69	The sickness absence rate was 2.3% in 2023 (calculated from the occupational health service provider's data per day/person vs. theoretical regular working hours). Bittium does not have information available regarding temporary labor. The most significant workability risks are related to musculoskeletal diseases, coping at work, and mental well-being.

Disclosure	Reporting contents	Location in Bittium's annual reporting	Additional information
<b>GRI 404: Training and Education</b>			
404-1	Average hours of training per year per employee	Sustainability at Bittium in 2023, Innovative and Developing People, p. 71	Bittium reports the number of training days / person.
404-2	Programs for upgrading employee skills and transition assistance programs	Sustainability at Bittium in 2023, Innovative and Developing People, p. 68	
<b>GRI 405: Diversity and Equal Opportunity</b>			
405-1	Diversity of governance bodies and employees	Corporate Governance Statement, Diversity Principles of the Board of Directors, p. 36; Sustainability at Bittium in 2023, Innovative and Developing People, p. 71	





# Report by the Board of Directors and Financial Statements 2023

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# Report by the Board of Directors 2023

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

## Year 2023 in Short

### Net Sales and Operating Profit in 2023 Decreased Year-on-Year. Actions Taken to Improve the Financial Performance Will Be Effective from 2024 onwards.

Bittium's net sales in January-December 2023 decreased by 8,8 percent year-on-year to EUR 75.2 million (EUR 82.5 million).

The share of product-based net sales was EUR 45.8 million (EUR 57.4 million), representing 60.9 percent of the net sales. The share of Medical products was EUR 21.8 million (EUR 22.6 million), and the share of Defense & Security products and systems was EUR 24.0 million (EUR 34.8 million). The decline in the product-based net sales was mainly caused by the delays in Medical technology product deliveries resulting from the component shortage in the beginning of the year, weaker than expected development of product sales outside of the US, and delays in regulatory approvals of medi-

cal devices. In addition, the slower-than-estimated progress of multi-year projects in the Defense business and thus the timing of orders and product deliveries affected negatively to the development of net sales.

The share of services-based net sales was EUR 29.5 million (EUR 25.1 million), representing 39.1 percent of the net sales. The share of Engineering Services' R&D services was EUR 17.0 million (EUR 15.2 million), resulting from the progressing digitalization in our customers' businesses and the new customers won last year.

R&D investments were EUR 20.2 million (EUR 22.3 million), representing 26.9 percent of net sales (27.0 percent), of which EUR 7.2 million were capitalized in the balance sheet (EUR 6.6 million).

In the fourth quarter, there were non-recurring items of EUR 3.2 million in total, including non-recurring costs of EUR 0.7 million due to changes negotiations and non-recurring write-down of EUR 2.5 million due to the impairment of inventory. The in-

ventory write-down was aimed, in accordance with the principle of prudence, at those components of the Defense & Security and Medical Business Segments whose minimum order quantity has been too large compared to the current demand forecast or the turnover rate has been very low.

EBITDA was EUR 5.2 million (EUR 11.0 million), including above-mentioned EUR 3.2 million non-recurring costs.

The operating result was EUR -4.3 million (EUR 0.3 million). In addition to the decline in the net sales, the operating result was affected by the above-mentioned non-recurring costs of EUR 3.2 million.

Result for the period was EUR -5.4 million, and earnings per share were EUR -0.153, including above-mentioned non-recurring items of EUR 3.2 million (result for the period EUR 0.3 million and earnings per share EUR 0.007).

Resulting from the change negotiations and other cost measures taken, Bittium



will achieve approximately EUR 6.0 million annual cost savings in total, from which EUR 0.8 million realized during 2023. The total cost savings the company estimates to achieve in 2024 in full.

Cash flow from operating activities was EUR 1.2 million (EUR 8.0 million). Net cash flow during the period was EUR -10.7 million, including EUR -4.3 million operating loss, EUR 7.2 million R&D investments into own products, EUR 3.0 million increase in the net working capital, and EUR 1.8 million dividend payment as the most significant items weakening the cash flow (EUR -3.0 million, including EUR 6.6 million R&D investments into own products, and EUR 1.4 million dividend payment as the most significant items).

The equity ratio was 69.6 percent (69.7 percent). Net gearing was 13.2 percent (3.0 percent).

The order backlog at the end of the year was EUR 27.6 million (EUR 28.1 million).

## Financial Performance in January–December 2023

<b>CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME, MEUR</b>	<b>2023 12 months</b>	<b>2022 12 months</b>
Net sales	75.2	82.5
Operating profit / loss	-4.3	0.3
Financial income and expenses	-1.0	-0.8
Result before tax	-5.3	-0.4
<b>Result for the period</b>	<b>-5.4</b>	<b>0.3</b>
<b>Total comprehensive income for the period</b>	<b>-5.5</b>	<b>0.5</b>
Result for the period attributable to:		
Equity holders of the parent	-5.4	0.3
Total comprehensive income for the period attributable to:		
Equity holders of the parent	-5.5	0.5
Earnings per share from continuing operations, EUR	-0.153	0.007

## Half Year Figures

<b>GROUP'S NET SALES AND OPERATING RESULT, MEUR</b>	<b>2H/23</b>	<b>1H/23</b>	<b>2H/22</b>	<b>1H/22</b>
Net sales	39.6	35.6	41.4	41.0
Operating profit (loss)	-1.1	-3.2	0.6	-0.2
Result before taxes	-1.6	-3.6	0.2	-0.7
Result for the period	-1.8	-3.6	0.9	-0.6
<b>DISTRIBUTION OF NET SALES BY PRODUCT AND SERVICES, MEUR AND %</b>	<b>2H/23</b>	<b>1H/23</b>	<b>2H/22</b>	<b>1H/22</b>
Product based net sales	24.4	21.4	30.2	27.2
	61.6%	60.0%	72.9%	66.3%
Services based net sales	15.2	14.2	11.2	13.8
	38.4%	40.0%	27.1%	33.7%
<b>DISTRIBUTION OF PRODUCT-BASED NET SALES, MEUR AND %</b>	<b>2H/23</b>	<b>1H/23</b>	<b>2H/22</b>	<b>1H/22</b>
Defense & Security products	13.8	10.2	18.9	15.9
	56.4%	47.9%	62.6%	58.5%
Medical products	10.7	11.1	11.3	11.3
	43.6%	52.1%	37.4%	41.5%
<b>DISTRIBUTION OF SERVICES-BASED NET SALES, MEUR AND %</b>	<b>2H/23</b>	<b>1H/23</b>	<b>2H/22</b>	<b>1H/22</b>
Engineering Services R&D services	8.1	8.9	7.2	8.0
	53.2%	62.3%	64.0%	57.8%
Other service-based net sales	7.1	5.4	4.0	5.8
	46.8%	37.7%	36.0%	42.2%
<b>DISTRIBUTION OF NET SALES BY MARKET AREAS, MEUR AND %</b>	<b>2H/23</b>	<b>1H/23</b>	<b>2H/22</b>	<b>1H/22</b>
Asia	0.3	0.5	0.7	0.5
	0.9%	1.4%	1.8%	1.3%
North and South America	10.7	10.2	12.9	10.4
	27.0%	28.6%	31.1%	25.4%
Europe	28.6	24.9	27.8	30.1
	72.1%	70.0%	67.1%	73.3%

## Quarterly Figures

<b>GROUP'S NET SALES AND OPERATING RESULT, MEUR</b>	<b>4Q/23</b>	<b>3Q/23</b>	<b>2Q/23</b>	<b>1Q/23</b>	<b>4Q/22</b>
Net sales	25.7	13.9	20.7	14.9	27.6
Operating profit (loss)	1.0	-2.1	0.3	-3.5	3.0
Result before taxes	0.7	-2.4	0.1	-3.7	2.8
Result for the period	0.6	-2.4	0.1	-3.7	3.5

<b>DISTRIBUTION OF NET SALES BY PRODUCT AND SERVICES, MEUR AND %</b>	<b>4Q/23</b>	<b>3Q/23</b>	<b>2Q/23</b>	<b>1Q/23</b>	<b>4Q/22</b>
Product based net sales	16.8 65.3%	7.6 54.9%	13.3 64.5%	8.0 53.7%	20.9 75.8%
Services based net sales	8.9 34.7%	6.3 45.1%	7.3 35.5%	6.9 46.3%	6.7 24.2%

<b>DISTRIBUTION OF PRODUCT-BASED NET SALES. MEUR AND %</b>	<b>4Q/23</b>	<b>3Q/23</b>	<b>2Q/23</b>	<b>1Q/23</b>	<b>4Q/22</b>
Defense & Security products	11.4 68.2%	2.3 30.5%	5.8 43.2%	4.5 55.6%	15.8 75.5%
Medical products	5.3 31.8%	5.3 69.5%	7.6 56.8%	3.6 44.4%	5.1 24.5%

<b>DISTRIBUTION OF SERVICES-BASED NET SALES, MEUR AND %</b>	<b>4Q/23</b>	<b>3Q/23</b>	<b>2Q/23</b>	<b>1Q/23</b>	<b>4Q/22</b>
Engineering Services R&D services	4.3 48.2%	3.8 60.4%	4.3 59.1%	4.6 65.8%	4.2 62.4%
Other service-based net sales	4.6 51.8%	2.5 39.6%	3.0 40.9%	2.4 34.2%	2.5 37.6%

<b>DISTRIBUTION OF NET SALES BY MARKET AREAS, MEUR AND %</b>	<b>4Q/23</b>	<b>3Q/23</b>	<b>2Q/23</b>	<b>1Q/23</b>	<b>4Q/22</b>
Asia	0.1 0.4%	0.3 1.8%	0.3 1.3%	0.2 1.5%	0.5 1.8%
North and South America	6.0 23.5%	4.7 33.6%	6.9 33.2%	3.3 22.2%	7.6 27.7%
Europe	19.6 76.2%	9.0 64.6%	13.5 65.5%	11.4 76.2%	19.5 70.6%

## Statement of Financial Position and Financing

The figures presented in the statement of financial position of December 31, 2023, are compared with the statement of the financial position of December 31, 2022 (MEUR).

	Dec. 31, 2023	Dec. 31, 2022
Non-current assets	84.6	85.0
Current assets	73.1	84.6
<b>Total assets</b>	<b>157.7</b>	<b>169.7</b>
Share capital	12.9	12.9
Other capital	94.6	102.8
Total equity	107.6	115.8
Non-current liabilities	1.8	21.7
Current liabilities	48.3	32.2
<b>Total equity and liabilities</b>	<b>157.7</b>	<b>169.7</b>

### CASH FLOW OF THE REVIEW PERIOD

	1-12/2023	1-12/2022
+ profit of the period +/- adjustment of accrual basis items	5.1	11.7
+/- change in net working capital	-3.0	-2.9
- interest, taxes and dividends	-0.9	-0.8
= net cash from operating activities	1.2	8.0
- net cash from investing activities	-7.7	-8.0
- net cash from financing activities	-4.2	-3.0
= net change in cash and cash equivalents	-10.7	-3.0

The number of gross investments in the period under review was EUR 9.4 million (EUR 9.5 million). Net investments for the review period totaled to EUR 9.2 million (EUR 9.4 million). The total amount of depreciation during the period under review was EUR 9.5 million (EUR 10.7 million). The amount of interest-bearing debt, including finance lease liabilities, was EUR 22.6 million at the end of the reporting period (EUR 22.4 million). Bittium's equity ratio at the end of the period was 69.6 percent (69.7 percent).

The group's liquidity remained good despite that the business developed weaker than expected, and the cash flow was clearly negative. Inventories and accounts receivable were at a high level at the end of the financial year. Securing cash flow has not required special adjustment measures, and no significant changes have been identified in the credit risks of customer receivables.

Cash and other liquid assets at the end of the reporting period were EUR 8.3 million (EUR 19.0 million). Net cash flow during the period was EUR -10.7 million. The net cash flow resulted from EUR -4.3 million operating loss, EUR 7.2 million investments made into own R&D, EUR 3.0 million increase in net working capital, and EUR 1.8 million dividend payment as the most significant items weakening the cash flow (EUR -3.0 million including EUR 6.6 million investments made into own product development, and EUR 1.4 million dividend payment).

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 Cor-

porate Bank Plc, valid until September 30, 2025. At the end of the review period, no limits from these facilities were in use. The company has started negotiations to arrange refinancing for financial instruments maturing on May 24, 2024.

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 2023, the R&D investments were EUR 20.2 million (EUR 22.3 million), representing 26.9 percent of the net sales (27.0 percent).

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

The capitalized R&D investments are related to the investments in developing Bittium

Tough SDR™ software-defined radio-based tactical radio product family, further development of tactical communication networks, and development of medical technology products.

On October 30, 2023, Bittium announced its updated strategy concerning years 2024 and 2025. In the strategy the company is seeking a change from a R&D organization to a customer-oriented, growth-oriented operating model through its segment organizations.

Between 2016 and 2023, the company's two Business Segments, Defense & Security and Medical, have invested strongly in the development of their own products. This has maintained the company's

high average annual R&D investment level of around EUR 20 million, corresponding to an average of approximately 25 percent of the company's annual net sales. In both product-oriented Business Segments, the large product development projects have proceeded into commercial phase. During the next two years period, these segments will now focus on continuous improvement of the competitiveness of existing products and development of features, which is the highly important to competitiveness in both Business Segments. In addition, the company will use development cooperation with other companies in its product development in the future.

<b>R&amp;D INVESTMENTS, (MEUR)</b>	<b>1-12/2023</b>	<b>1-12/2022</b>
<b>Total R&amp;D investments</b>	<b>20.2</b>	<b>22.3</b>
Capitalized R&D investments	-7.2	-6.6
Depreciations and impairment of R&D investments	5.6	5.9
Cost impact on income statement	18.6	21.5
R&D investments, % of net sales	26.9 %	27.0%

<b>CAPITALIZED R&amp;D INVESTMENTS IN THE BALANCE SHEET, MEUR</b>	<b>1-12/2023</b>	<b>1-12/2022</b>
Balance sheet value in the beginning of the period	48.8	48.1
Additions during the period	7.2	6.6
Depreciations and impairment of R&D investments	-5.6	-5.9
Balance sheet value at the end of the period	50.5	48.8

## Strategy Implementation and Other Significant Events in 2023

At the beginning of 2022, Bittium started developing its operations towards independent business units with the aim of starting business-specific segment reporting by the beginning of 2024 at the latest. With the change, the company seeks a clearer focus for its operations, growth, and improvement of its ability to generate results. The renewal was completed during 2023, and the company will start segment reporting based on the new structure from the beginning of 2024.

The technological know-how needed in all the company's businesses is similar, but the businesses, customers and market dynamics are very different. The stronger independence of the businesses strengthens Bittium's ability to serve its customers in a more customer-oriented manner and improves the speed of decision-making in each business, strengthening the company's position in each market. It also speeds up the responsiveness of business operations to the surrounding market changes, enabling the production of ever-increasing added value for customers.

During 2023, the company continued to work to strengthen its business functions to enable the formation of independent businesses. As part of this development, the company changed its organizational structure to serve its independent business units more efficiently. The operations of the entire group were reorganized by transferring, among other things, the previously jointly centralized group functions to a large extent to the Business Segments in accordance with the needs of each segment. This significantly lightened the company's cost structure at the group level.

In the second half of the year, the company went through significant change negotiations due to production, financial and reorganization related reasons. Change negotiations started on August 23, 2023, as part of the company's measures to improve its profitability and develop its operations towards independent business units. The negotiations concerned all of the compa-

ny's subsidiaries in Finland and included approximately 600 employees. As a result of the negotiations, the company dismissed 61 employees and laid off 8 employees for the time being.

As part of the company's actions to improve financial performance, all the company's processes, operating methods, and cost structure were reviewed and modified to enable profitable growth. The company also decided to close its offices in Mexico and Singapore and terminate the activities of its subsidiaries operating in these countries (Bittium Mexico S.A. de C.V. and Bittium Singapore Pte. Ltd.). The closure of the offices has not had an impact on the company's ability to serve its customers or deliver its products to its customers in South America or Asia.

Through dismissals and temporary layoffs and other cost-saving measures, the company will achieve annual savings of approximately EUR 6.0 million in total, of which EUR 0.8 million were realized during 2023. The company estimates to achieve the cost savings in full during 2024. As a result of the decisions and measures taken, the company recorded a total of EUR 0.7 million in non-recurring costs resulting from the changes in its income statement for the fourth quarter of 2023.

### Profit Warning (announced on September 15, 2023)

On September 15, 2023, Bittium Corporation lowered its financial outlook for the year 2023. The company expected the net sales in 2023 to be at the same level or lower than in the previous year (EUR 82.5 million in 2022), and the operating result to be lower than in the previous year (EUR 0.3 million in 2022). Cash flow in 2023 was expected to be negative.

The main reason for the decrease in net sales and operating result was the delivery volumes of tactical communication products and security solutions in the Defense & Security business unit, which were realizing along the year at a slower pace and with lower volumes than earlier expected. Due to the decrease in the net sales and operating result, the cash flow in 2023 was expected to be negative.

### Updated Strategy – from R&D House towards Profitable Growth Company

On October 30, 2023, Bittium announced its updated strategy concerning the years 2024 and 2025. Bittium's main goals are to achieve an average annual net sales growth of more than 10 percent and an operating profit level of 10 percent. The updated strategy will enable the achievement of the set goals.

In accordance with the updated strategy, the company has three Business Segments: Medical, which focuses on measuring bio-signals and remote monitoring, Defense & Security, which offers products and services to the defense and security markets, and Engineering Services, which offers R&D services. Group operations that were previously centralized are now also largely divided into the company's three Business Segments, best meeting the needs of each segment. This was an essential change to optimize the operation of more independent businesses.

The company's updated strategy has three main focus areas. The first one is a change from a product development organization to a customer-centric, growth-oriented operating model through its segment organizations. Secondly, the company focuses strongly on its current products and increasing their market shares. The R&D work is mainly concentrated on further improving the competitiveness and productivity of these products. Thirdly, the company seeks to increase efficiency in its own operating methods and has streamlined its cost structure, which is expected to significantly improve the company's profitability and cash flow.

Between 2016 and 2023, the company's two Business Segments, Defense & Security and Medical, have strongly invested in the development of their own products. This has maintained the company's high average annual R&D investment level of around EUR 20 million, corresponding to an average of approximately 25 percent of the company's annual net sales. Both product-oriented Business Segments will now focus on continuous improvement of the competitiveness of existing products and development of their features. Continuous product



improvement is highly important to competitiveness of both Business Segments. In addition, the company will use development cooperation with other companies in its product development in the future. In the R&D oriented operational model the cost structure in the company has been heavy due to the large R&D projects.

### Medical Business Segment

The Medical Business Segment consists of three business areas, which are the measurement and analysis of the electrical activity of the heart (ECG), the measurement and analysis of the electrical activity of the brain (EEG), and the measurement and analysis of sleep apnea. In business, the focus is specifically on further improving the competitiveness, and productivity of the products, as well as on the efficiency of operations.

In the medical technology market, significant development is taking place regarding the treatment of patients, especially outside hospitals. Increasing efforts are being made to prevent diseases and health problems with the help of early diagnostics. The aim is to discharge patients at an even earlier stage to reduce hospital and treatment days. These significantly increase the efficiency of healthcare processes, reduce costs, and improve the treatment experience. The prerequisite for the prevention of health problems and early discharge is enabling accurate monitoring and measurement in home conditions with the help of remote monitoring.

The offering of the Medical Business Segment focuses on remote monitoring solutions. Bittium has solid and proven world-class biosignal processing technology expertise. In the coming years, the company will focus on its product business to also increase the amount of recurring net sales, both with the help of software and various multi- and single-use products. In the medical business, the focus will be on cooperation with existing international key customers to increase market shares together, and on acquiring new customers.

### Defense & Security Business Segment

The Defense & Security Business Segment consists of three business areas that are defense industry products (Defense Products), defense industry product development ser-

vices (Defense Services) and secure products and services (Security). Bittium's business consists of tactical communication solutions aimed at the defense market and high security communication solutions aimed at authorities and the professional user market.

Russia's war of aggression against Ukraine has increased the defense budgets of various countries and increased the states' interest to modernize their tactical communication systems. The defense forces of different countries and other authorities need networks for tactical data transmission, where increasingly mobile network users can reliably and securely transfer growing amounts of data. Finland's NATO membership is also expected to have a positive effect on the demand for Bittium's defense and secure products, especially in NATO countries. Bittium has superior waveform quality and secure wireless technology integrated with hardware and software intended for defense and authorities' use.

Over the past years, the company has made significant investments to expand its product portfolio. The products and systems are now at an internationally very competitive level, both in terms of coverage and technical characteristics. In the future, the company will focus on the continuous improvement of the competitiveness of existing products and the development of features to ensure the preservation of competitiveness. The company will put emphasis strongly in its key customers and invest in international sales and marketing to pursue new customers. The company's goal is to grow significantly the international product business and achieve an internationally significant position as a provider of tactical communication and high security communication solutions.

### Engineering Services Business Segment

In the Engineering Services Business Segment, Bittium offers its customers R&D services and wireless connectivity solutions for the development of innovative products in a secure and evolving wireless environment. The company has focused its R&D service offering around radio technologies and embedded devices. Bittium has world-class expertise in wireless technologies and comprehensive product development throughout the whole product life cycle.

In the mobile telecommunications, investments in the development of new features continue, and the importance of software development regarding the development of 5G networks is strengthened. Along with digitization, secure IoT (Internet of Things) is a significant development area in almost all industries, where the demand is created by the growing need of companies to digitize their operations, collect data wirelessly and transfer data to cloud services, as well as monitor and control devices and systems remotely. Also, the goal of western companies to shift the focus of R&D to an increasing extent, e.g., to Europe, creates more demand for companies offering R&D services and wireless connectivity solutions.

In the coming years, Bittium will continue to grow its international customer base, especially in the Industry IoT market segment. The company will also invest in developing strategic partnerships with its current customers.

### Long-term financial goals (as announced on October 30, 2023)

Bittium kept its long-term financial goals unchanged. The company aims for an average annual net sales growth of more than 10 percent and an operating profit level of 10 percent and estimated to achieve these goals in 2024.

### Capital Markets Day 2023

Bittium organized a Capital Markets Day on October 30, 2023, where the company's updated strategy was reviewed. A recording of the event and the materials of the presentations are available on Bittium's IR pages at: <https://www.bittium.com/investors>.

### Segment-based Financial Reporting

In December 2023, the Board of Directors of Bittium Corporation decided that the company will change its financial reporting to be based on a new segment structure as of January 1, 2024. The new segment reporting is based on the updated strategy.

In the new reporting structure, there will be four reporting segments: the three Business Segments (Defense & Security, Med-

ical, and Engineering Services), and, in addition, the company decided to report the Group Functions as a separate, fourth segment. The goal of adopting the new reporting structure is to improve the transparency into the company's Business Segments and their development.

The new Group Functions segment includes group administration, strategic projects, and stock market listing related functions, as well as renting premises owned by the group. Group Functions charge rent from Business Segments for the premises. In addition to this, Group Functions produces common services for the Business Segments, which are reasonable to be managed centrally. For these services, the Business Segments pay a service fee in proportion to the amount of each segments' personnel. The CEO, CFO, CDO, Vice President, Communications and Sustainability, and CLO are responsible for the Group Functions. Altogether, there are approximately 50 employees in Group Functions.

The reportable financial indicators of the new segments are net sales, EBITDA, EBITDA % of net sales, operating result, operating result % of net sales, R&D investments, capitalized R&D investments, new orders and order backlog, and the amount of personnel. The first financial report based on these new segments will be Bittium Corporation's Business Review January–March 2024, to be published on April 26, 2024, at 8.00 am (CET+1). Adjusted comparative segment information from 2023 will be published in the same Business Review report.

## Seamless and Secure Connectivity Program

At the end of March, Bittium launched the Seamless and Secure Connectivity program, the purpose of which is to enable end-to-end connections in various operational areas with reliable, secure, and fault-tolerant connectivity architectures and products, including life-cycle services for products and solutions. Business Finland awarded development funding of EUR 10 million to the program in the challenger competition of Veturi-companies, and EUR 20 million to the ecosystem companies and research partners surrounding the program. The four-year program led by Bittium will last until 2026.

The Seamless and Secure Connectivity program enables comprehensive development of strategically important themes for Bittium. These themes include, e.g., encryption and information security technologies and remote medical diagnostics (ECG, EEG, and sleep apnea) including measuring of biosignals, digitalization of services, increase in wireless connectivity and data secure connections.

In connection with the program, the first two co-innovation projects were launched during 2023: CISSAN, which is part of the EU CELTIC-Next program, creating algorithms to reduce IoT security threats, and Photon-Wear, which aims to develop optical detection methods for physical parameters and biomarkers. In total, there have been around 50 partner companies or research institutes in the ecosystem discussions so far, and several co-innovation projects are expected to be launched from the projects also during 2024.

## Market Environment and Business Development in January–December 2023

### Defense & Security Business

The world's political situation changed significantly in February 2022 as Russia attacked Ukraine. The outbreak of war caused several countries to increase their defense budgets, which has had an increasing effect on the demand for defense sector products and services. The interest in modernizing the states tactical communication systems to meet the needs of modern warfare has also grown.

Interest in Bittium's tactical communication solutions has remained on a high level, and the ongoing international customer pilots have progressed well. Bittium is involved in several tenders regarding tactical communication products and systems, which may take several years, depending on the scope of each project. The feedback on Bittium's products in the field tests has been positive,

and we expect the results of the ongoing tenders during the current year.

Close cooperation with the Finnish Defense Forces continued. Bittium's tactical backbone network and the related products and radios are used by all defense branches of the Defense Forces, supporting the modern way of fighting, where the mobility and management of the forces on the move and effective communication are essential. In 2023, product delivery volumes remained low compared to the corresponding time of the previous year caused by the slow progress in several customer projects during last year. This is typical in multi-year customer projects, where the annual delivery quantities vary between the different phases of the project.

On November 14, 2023, Bittium and Finnish Defense Forces signed a new framework agreement for the purchase of products intended for tactical communication. The contract concerns the purchase of Bittium Tactical Wireless IP Network™ (TAC WIN) software radio system products and Bittium Tough Comnode™ communication equipment and related accessories during the years 2023–2028. The Framework Agreement has a maximum value of EUR 51.6 million, and based on the Agreement, the Finnish Defence Forces will issue separate purchase orders in several batches during the validity period of the Agreement. The first order based on this Framework Agreement was placed on December 21, 2023, with a value of EUR 3.7 million. The delivery of the ordered products started in 2023.

The deployment of Bittium Tough SDR™ software-defined radios has progressed according to the plans of the Defence Forces, with the aim of ensuring the performance of the equipment during 2024 to start a wider deployment of the radios. The waveform development of the radios and the development of new functionalities for the customer continued as planned.

In December, the Finnish Defense Forces ordered development work from Bittium for a new software-based router intended for tactical communication. The software router enables the formation of even larger network entities for the tactical communication needs of the mobile forces. The value of the order was approximately EUR 4.4

million, and the development work will be carried out during the years 2024 and 2025.

In Austria, the deployment of Bittium's tactical communication systems by the local army continued and the delivery of system products and the integration and testing of products and systems continued.

The discussions about cooperation with international companies developing air defense and sensor systems progressed.

In November, NATO approved the ESSOR High Data Rate Waveform, developed by the a4ESSOR consortium, as a standard for tactical communication interoperability (STANAG 5651). Bittium has been one of the partners of the industrial a4ESSOR consortium since its foundation. With the ratification of the standard, the waveform will be available to all NATO member countries, thus enabling faster and more secure data transfer in both national and coalition forces' operations. Bittium provides the waveform to its customers together with Bittium Tough SDR™ product family radios.

With Finland's NATO membership, interest in Bittium's products has increased, and the membership is expected to strengthen the company's competitive position, especially in tenders for NATO countries. The membership also enables Bittium to implement NATO waveforms and encryption solutions, if necessary, and offers the opportunity to participate in the research programs of NATO countries.

Bittium has applied for a NATO information security listing for its secure Bittium Tough Mobile™ 2 C solution. The solution meets the criteria required for information security listing, but the listing is delayed due to the work backlog of the authorities updating the listing. Bittium has currently no information on the progress of the list update. Entering the list of NATO-approved devices is expected to have a positive effect on the sales of the solution.

Interest in secure Bittium Tough Mobile™ mobile phones and information security-related software has increased due to numerous data security attacks. The sales volume of the devices increased during 2023. Phones, their background systems, and software were delivered to several Eu-

ropean countries for authorities' usage. The Bittium Tough Mobile™ 2 Tactical solution developed for military use has also aroused interest among the defense administration authorities of different countries, and several system pilots started during 2023.

## Medical Business

The A component shortage significantly slowed down the manufacturing and deliveries of medical technology products at the beginning of the year, and the production of Bittium Faros™ ECG devices was very limited for several months. In April–May, production volumes were increased, and the manufacturing of products continued with better capacity in May–June. The deliveries continued in the second quarter as planned, and the shortage of components eased towards the end of the year, as expected. In the second half of the year, the sales of medical technology devices outside of US market developed slower than estimated. The development of sales is affected by the insurance policies related to treatment reimbursement, which vary between different countries affecting the development pace of remote diagnostics market. In addition, entering new markets is affected by obtaining the medical device regulatory approvals, that may take up to more than a year depending on the approval.

Most product deliveries of Faros ECG devices were still made to the US customer Boston Scientific Cardiac Diagnostics (CDx) (previously known as Preventice). CDx is one of the leading providers of ECG measurement services in the US.

In the neurophysiology market, the piloting of Bittium BrainStatus™ EEG measuring devices in intensive care units continued in Finland and abroad. The change in recommendations for intensive care regarding EEG measurement is expected to have a positive effect on the demand for BrainStatus.

Product deliveries of the home sleep apnea test and measurement solution Bittium Respiro™ continued in Europe, and the feedback from our customers' clinical trials has been positive. Respiro's sales are expected to strengthen during the current year and form one significant growth driver in the Medical Business Segment in the

future. In November, Bittium and ResMed started a collaboration regarding the distribution of Bittium Respiro to hospitals and treatment centers. The signed distributor agreement concerns the Bittium Respiro™ measuring device and its accessories as well as the Bittium Respiro Analyst™ analysis software and service platform, giving ResMed the right to resell them. The agreement does not include exclusive rights and it covers the right to resell the solution in Great Britain, Ireland, Switzerland, Finland, Norway, and Sweden. ResMed is a leading provider of cloud-based medical devices whose solutions are transforming the care of people with sleep apnea, COPD, and other chronic respiratory diseases.

Bittium is applying for a sales license for Respiro for the US market from the Food and Drug Administration (FDA). The current estimate of the amount of work and the time needed for it is at least one year. The requirements of the FDA authority have grown and become stricter in recent years. The overall duration of the sales license process is affected by the authority's further interpretation of possible additional material needs.

Bittium is undergoing regulatory approval processes for its medical devices in several different countries. As necessary, the company will apply for a new European medical device approval (MDR) for its medical technology products already in production, which are approved according to the current standard (MDD). Decisions on applying for MDR approvals for existing products will be made on a business basis, or if significant changes are made to the products that require a new approval process.

## Engineering Services Business (Previously Connectivity Solutions)

Despite the prevailing cost-saving pressure in the markets among our customers, Bittium's R&D services sales grew during 2023. The accelerating digitalization in various industries increased the need for design services. Especially in the Industrial IoT technology market, the growing need for cloud communication creates a need for companies to add wireless connectivity to their products. The increase of European companies focusing their R&D geographically on Europe, has also had a positive effect on

the sales growth of Bittium's R&D services, especially of the device design.

Cooperation with customers continued well. Several customer projects were successfully completed, and the company's customer portfolio expanded during the past year with several new customers in the transport, traffic, and professional tool markets, among others. Customer projects include, for example, the designing of a remotely controlled system and its connectivity solution, designing of connectivity parts for a traffic control system, and designing of measuring devices and their connectivity solutions intended for professional use.

## Significant Events after the Reporting Period

On January 24, 2024, Antti Näykki, Senior Vice President, Medical Business Segment, Bittium Corporation (Engineer, Embedded Systems) was appointed as Vice President, Group Business Development as of February 1, 2024. He continues as a member of Bittium Corporation's management group. In this role, Näykki focuses on building Bittium's long-term growth. He is also responsible for the management of the group's research activities, supply chains and quality, as well as human resources and information management. Näykki reports to CEO Johan Westermarck.

Laura Kauppinen, Bittium Corporation's Chief Development Officer (PhD, Psychology) was appointed as Senior Vice President, Medical Business Segment as of February 1, 2024. Kauppinen continues as a member of Bittium Corporation's management group. Kauppinen focuses on implementing the updated strategy to enable profitable growth in the Medical business. Kauppinen reports to CEO Johan Westermarck.

As of February 1, 2024, Bittium Corporation's management group includes following persons: CEO Johan Westermarck (Chairman), CFO Antti Keränen, CLO Kari Jokela, Vice President Communications and Sustainability Karoliina Malmi, Vice President Group Business Development Antti Näykki, and the heads of Business Segments: Tommi Kangas, Senior Vice President, Defense & Security Business Segment, Jari Inget,

Vice President, Engineering Services Business Segment, and Laura Kauppinen, Senior Vice President, Medical Business Segment.

On January 31, 2024, following the recommendation of the Audit Committee, Bittium Corporation's Board of Directors proposes to the Annual General Meeting to be held on April 10, 2024, that, based on the competitive tendering of the audit, the audit firm PricewaterhouseCoopers Oy be appointed as the Company's auditor for the financial year 2024. If PricewaterhouseCoopers Oy is selected as the auditor of the Bittium Corporation, Sami Posti, Authorized Public Accountant, will act as the principal auditor, as stated by the firm. PricewaterhouseCoopers Oy will also serve as the assurance provider for the Bittium Corporation's sustainability reporting for the financial year 2024.

## Outlook for 2024

Bittium expects the net sales in 2024 to be EUR 85–95 million (EUR 75.2 million in 2023) and the operating result to be EUR 7.0–9.5 million (operating loss of EUR -4.3 million in 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](http://www.bittium.com).

## Market Outlook

Bittium's customers operate in various industries, each 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 connectivity 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 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 NATO membership is expected to have a positive effect on the demand for Bittium's defense and official products, especially among NATO member countries.

Bittium continues its efforts to export tactical communications' products to international markets and aims to get new international customers during 2024. The long sales cycles of the defense industry affect sales development and forecasting.

The use of LTE technology, smartphones, and applications continue to increase in special verticals, such as public safety, creating demand for Bittium Tough Mobile™ secure smartphone and other customized special terminals based on Bittium's own product platform, as well as for secure software solutions. The awareness of mobile security risks is growing, and the interest in secure mobile devices and software solution

is increasing. The sales of secure terminal products are expected to develop moderately according to the nature of public safety markets.

## Telecommunication and Digitalization

In mobile telecommunications, the implementation of 5G is accelerating. 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 and IoT radio technologies are 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.

Focusing the R&D work of western companies to Europe, can be seen as an increase in demand for Bittium's R&D services, especially in terms of device design

Demand for R&D services is affected by customers' cost-saving pressures in various industry segments.

## 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 measuring biosignals, as well as remote monitoring and diagnostics, Bittium provides its Bittium Faros™ product family for remote ECG monitoring, Bittium Brain-Status™ for measuring the electrical activity of the brain, home sleep apnea test solution Bittium Respiro™, and different kinds of diagnostics software offered by Bittium.

Regulation by the authorities has a strong role in bringing medical devices to the market. The requirements vary for different countries and the processes are long-term. Bittium has several regulatory approvals for its medical devices in progress in different countries. The company has achieved medical device approval of the new MDR standard level in the EU region for the Bittium Respiro™ product family that measures sleep apnea. Bittium has also applied for

a medical device sales license for the Respiro product family from the US Food and Drug Administration (FDA). The schedule is affected by additional clinical studies determined by the FDA authority. The estimated duration of the additional work is at least one year.

## 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, increased interest rates, challenges in supply chains, and problems in the European energy market have caused various risks related to demand and supply and increased uncertainty.

The global disruption in the availability of electronic components and their price development caused changes in the company's ability to deliver products to its customers still in the beginning of 2023. The company continues to monitor the development of the situation and actively strives to ensure the availability of components required for product deliveries.

### 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 accumulate 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 result, 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. Access to the medical device market requires and may be delayed due to required regulatory approvals.

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, including increased interest rates. 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. The company has started negotiations to arrange refinancing for financial instruments maturing on May 24, 2024.

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: 1. personnel, 2. customers and information security, and 3. 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.

During 2023 Bittium stated preparing for the entry into force of the EU's new sustainability directive. As part of this, the company will carry out a double materiality analysis, based on which the group will update its sustainability program in 2024.

## 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 will update its Code of Conduct and other politics during 2024.

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 2023, compliance with the guidelines has been assessed based on suppliers' self-assessments and critical supplier audits.

Export control is an important part of the company's operations and a prerequisite for cooperation between authorities and customers. By closely monitoring the changing legislation in different market areas and by

following the regulations, Bittium promotes the responsible message of Finnish technology. During 2023, Bittium has specified the export control procedures in cooperation with the authorities.

## 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. 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<sub>2</sub>ekg), 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 206.8 tCO<sub>2</sub> in 2023 (204.0 tCO<sub>2</sub> in 2022) and the Scope 2 emissions (heating and electricity) were 413.1 tCO<sub>2</sub>e (563.5 tCO<sub>2</sub>e in 2022). Bittium's total energy consumption decreased by 13.1 percent and was 3,331 MWh (3,827 MWh in 2022). Regarding the office space in Oulu, about 5.6 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 38 percent (38 percent in 2022).

Bittium's waste utilization rate was 99.9 percent last year (goal > 95 percent).

## Social Issues and Employees

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 equality plan was updated during 2023. Its most important measures are paying attention to the equality of wages and career development, the openness of recruitment, and the systematic support of the working careers of aging employees.

The key measure of the annual employee survey was the staff engagement index, the goal of which for the years 2023–2025 has been set at 4.0 (scale 1–5), but for the year 2023 the goal was not reached. As expected, the result reflects the change negotiations held at the end of 2023.

Bittium's position as a technological pioneer requires that the personnel actively maintain and develop their own expertise, both in terms of basic skills and the related common ways of doing things, as well as the latest technologies, tools, legislation, and other regulations of the rapidly changing operating environment, and that they have a vision of the trends in the development of technology and the operating environment. The goal in competence development is continuous development and learning while working.

The most typical work ability risks in the field are musculoskeletal disorders as well as 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 2023, Bittium's Finnish companies reported 11 workplace accidents, one of which resulted in a short, temporary 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 activi-

ties 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 2023, 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 2023, the company did not become aware of any suspected corruption.

In the spring of 2023, Bittium implemented a notification channel in accordance with the whistleblowing directive. The company has precise processes for following up and handling notifications, and notifications are investigated urgently and confidentially, protecting the identity of the person making the notification. The channel did not receive any announcements during the year.

## EU Taxonomy Disclosure

### The EU Taxonomy

To reach the goal of EU Green Deal and EU's climate and energy objectives 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.

Bittium has identified the following economic activities in its business operations as taxonomy-eligible:

- Environmental objective 1 (Climate change mitigation): category 8.1 Data processing, server space rental and related activities,
- Environmental objective 2 (Climate change adaptation): category 8.1 Data processing, server space rental and related activities, and
- Environmental objective 4 (Circular economy): category 1.2 Manufacture of electrical and electronic equipment, category 4.1. Provision of IT/OT data-driven solutions, and category 5.2 Sale of spare parts.

Bittium solutions that offer data processing services and server space rental services are carefully checked based on the description of category 8.1 of environmental objective 1 (climate change mitigation). Bittium interpreted the matter strictly and stated that solutions using Bittium's own data center fit this description and are therefore taxonomy-eligible. The company was unable to confirm with sufficient evidence the extent to which the current operation meets the requirements defined in the criteria for sufficient contribution. For this reason, the company decided that its operations are taxonomy-eligible, but not taxonomy-aligned.

In addition to the design and development of own products related to programming, Bittium offers versatile IT expertise and services. Such activities include, for example, software development, development of connectivity solutions, research, and consulting services. In 2022, Bittium defined these activities as taxonomy-eligible activities according to environmental objective 2 (climate change adaptation) in category 8.2 Software, consulting and related activities and reported the related key figures accordingly. In 2023, the EU Commission issued the EU Commission note C/2023/305 on eligibility/alignment-related reporting, which includes special instructions for reporting the net sales of businesses falling under the category 8.2. According to this instruction, Bittium's taxonomy report for 2023 does not include net sales accumulated from the activities related to category 8.2.

Bittium manufactures several of its own electrical and electronic devices for measuring biosignals and remote monitoring as well as for the defense and security markets. These functions include Bittium's own electrical and electronic devices, design, development, production, and maintenance of accessories, as well as the maintenance of device software, in addition to the maintenance of the device structure. These business activities are aligned with the description of Environmental objective 4 (Circular economy) category 1.2 Manufacture of electrical and electronic equipment, and therefore are taxonomy-eligible. Bittium was unable to confirm with sufficient evidence that any of these activities meet the requirements defined in the criteria for substantial contribution. Therefore, the company chose a conservative interpretation and decided that the functions in question are not taxonomy-aligned.

Bittium offers various software products and solutions related to information technology. Such functions are checked based on description of Environmental objective 4 (Circular economy) category 4.1. Provision of IT/OT data-driven solutions. Activities in which the following are manufactured, developed, installed, put into use, maintained or repaired, or expert services are provided, including technical consulting on the design or monitoring of the following are defined as taxonomy-eligible. Among Bittium's ac-



tivities, production and delivery of its own software products and solutions related to information technology, maintenance, implementation services for software products in the customer's environments, customer training related to implementation, support services and expert services have been defined as taxonomy-eligible. Bittium cannot confirm with sufficient evidence that any of these activities meet the requirements defined in the criteria for substantial contribution. Therefore, the company chose a conservative interpretation and decided that the activities in question are not taxonomy-aligned.

As part of product sales, Bittium offers repair services, which include the sale of spare parts for certain products. The separately identifiable spare part sales in question have been defined as taxonomy-eligible based on the description of Environmental objective 4 (Circular Economy) category 5.2 Sale of spare parts. Bittium chose a conservative interpretation and decided that repair services that include component exchanges but are not identified as spare part sales do not qualify as taxonomy-aligned activities. The company was unable to establish with sufficient evidence that any of these activities meet the requirements defined in the criteria for substantial contribution. Therefore, the company chose a conservative interpretation and decided that the activities in question are not taxonomy-aligned.

## Accounting Policy for Financial KPIs

Bittium did not identify taxonomy-aligned activities, so the taxonomy-aligned net sales, capital expenditure, and operating expenditure is 0%.

### Net Sales

- Bittium has calculated the net sales (note 2 of the Financial Statements) in accordance with the delegated act on the provision of information. The criteria correspond to the principles regarding the preparation of financial statements of the IFRS 15 standard.
- With regards to environmental objective 1 (climate change mitigation) category 8.1 Data processing, server space rental and related activities, Bittium has found eligi-

ble net sales, and it is reported in the table on the next pages. Solutions using Bittium's own data center fit this description.

- Regarding the environmental objective 4 (Circular Economy) category 1.2 Manufacture of electrical and electronic equipment, Bittium has found eligible net sales, and it is reported in the table on the next pages. Bittium's sales of electronic equipment in both the Defense & Security and Medical business segments fit this description.
- Regarding the environmental goal 4 (Circular economy) category 4.1 Provision of IT/OT data-driven solutions, Bittium has found eligible net sales, and the data is reported in the table on the next pages. Bittium's information technology sector's own software product license sales and maintenance-related net sales in both the Defense & Security and Medical business segments fit this description.

### Capital Expenditure

- In this taxonomy report, the costs incurred from the acquisition of tangible and intangible assets and right-of-use assets are counted as capital expenditures (note 11 of the financial statements).
- Bittium has calculated the capital expenditure in accordance with the delegated act on the provision of information. At the same time, it has defined the absolute capital expenditures used in taxonomy reporting as gross investments.
- According to Bittium, capital expenditures allocated to its taxonomy-eligible net sales, such as investments in measurement devices and manufacturing equipment, can be classified as taxonomy-eligible capital expenditures.
- According to the guidelines of the EU Taxonomy Regulation, Bittium's capital expenditure was EUR 9.36 million in 2023.
- Bittium's taxonomy-eligible capital expenditures were EUR 0.28 million in 2023.

### Operating Expenditure

- In this taxonomy report, direct expenses related to research and development, product delivery and facility maintenance, which have not been capitalized by the company, are counted as operating expenditures.
- Bittium has calculated the operating expenses in accordance with the delegated act on the provision of information and de-

termined that the operating expenses allocated to the taxonomy-eligible net sales can be classified as taxonomy-eligible operating expenses.

- According to the guidelines of the EU Taxonomy Regulation, Bittium's operating expenses were EUR 73.45 million in 2023.
- Bittium's taxonomy-eligible operating expenses were EUR 43.29 million in 2023.

Bittium will continue to develop the taxonomy evaluation and reporting practice in 2024. Bittium aims to increase the share of sustainable business practices. As the field of application of the reporting practices expands and the practices become clearer, the company expects that the proportion of its taxonomy-eligible and taxonomy-aligned activities will increase in the future.

## Sales revenue

Economic activities	Codes	Substantial Contribution Criteria								DNSH Criteria									
		Absolute turnover	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	Minimum Safeguards	Proportion of Taxonomy aligned (A.1) or eligible (A.2.) turnover	Category Enabling activities	Category Transitional activities
		M€	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E
<b>A. TAXONOMY-ELIGIBLE ACTIVITIES</b>																			
A.1 Environmentally sustainable activities (taxonomy-aligned)																			
Not found	NA	0,00	0,0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turnover of environmentally sustainable activities (taxonomy-aligned) (A.1)		0,00	0,0	%	%	%	%	%	%								0%		
of which enabling		0,00	0,0	%	%	%	%	%	%								%		
of which transitional		0,00	0,0	%													%		
<b>A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)</b>																			
				EL;N/EL(f)	EL;N/EL(f)	EL;N/EL(f)	EL;N/EL(f)	EL;N/EL(f)	EL;N/EL(f)										
Data processing, hosting and related activities	CCM 8.1	0,23	0%	EL													0%		
Manufacture of electrical and electronic equipment	CE 1.2	36,38	48%				EL										0%		
Provision of IT/OT data-driven solutions	CE 4.1	11,75	16%				EL										0%		
Sale of spare parts	CE 5.2	0,34	0%				EL										0%		
Turnover of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		48,70	65%	0.3%	29%	0%	71%	0%	0%								0%		
<b>Total (A1 + A2)</b>		<b>48,70</b>	<b>65%</b>	<b>0.3%</b>	<b>29%</b>	<b>0%</b>	<b>71%</b>	<b>0%</b>	<b>0%</b>								<b>0%</b>		
<b>B. TAXONOMY-NON-ELIGIBLE ACTIVITIES</b>																			
Turnover of Taxonomy-non-eligible activities		26,55	35%																
<b>Total (A + B)</b>		<b>75,28</b>	<b>100%</b>																

## Capital expenditure

Economic activities	Codes	Substantial Contribution Criteria								DNSH Criteria						Minimum Safeguards	Proportion of Taxonomy aligned (A.1) or eligible (A.2.) turnover	Category Enabling activities	Category Transitional activities
		Absolute turnover	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				
		M€	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N				
<b>A. TAXONOMY-ELIGIBLE ACTIVITIES</b>																			
<b>A.1 Environmentally sustainable activities (taxonomy-aligned)</b>																			
NA		0,00	0,0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	
CapEx of environmentally sustainable activities (taxonomy-aligned) (A.1)		0,00	0,0														0%		
of which enabling		0,00	0,0	%	%	%	%	%	%								0%		
of which transitional		0,00	0,0	%													0%		
<b>A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)</b>																			
				EL;N/EL(f)	EL;N/EL(f)	EL;N/EL(f)	EL;N/EL(f)	EL;N/EL(f)	EL;N/EL(f)										
Computer programming, consultancy and related activities	CCA 8.2	0,03	0%		EL												2%		
Manufacture of electrical and electronic equipment	CE 1.2	0,25	3%				EL										0%		
CapEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		0,28	3%	0%	11%	0%	89%	0%	0%								2%		
<b>Total (A1 + A2)</b>		<b>0,28</b>	<b>3%</b>	<b>0%</b>	<b>11%</b>	<b>0%</b>	<b>89%</b>	<b>0%</b>	<b>0%</b>								<b>2%</b>		
<b>B. TAXONOMY-NON ELIGIBLE ACTIVITIES</b>																			
CapEx of Taxonomy-non-eligible activities		9,08	97%																
<b>Total (A + B)</b>		<b>9,36</b>	<b>100%</b>																

## Operational expenditure

Economic activities	Codes	Absolute turnover M€	Proportion of turnover %	Substantial Contribution Criteria						DNSH Criteria						Minimum Safeguards Y/N	Proportion of Taxonomy aligned (A.1) or eligible (A.2.) turnover %	Category Enabling activities E	Category Transitional activities T
				1.Climate change mitigation Y; N; N/EL	2.Climate change adaptation Y; N; N/EL	3. Water and marine resources Y; N; N/EL	4. Circular economy Y; N; N/EL	5. Pollution Y; N; N/EL	6. Biodiversity and ecosystems Y; N; N/EL	1.Climate change mitigation Y/N	2.Climate change adaptation Y/N	3. Water and marine resources Y/N	4. Circular economy Y/N	5. Pollution Y/N	6. Biodiversity and ecosystems Y/N				
<b>A. TAXONOMY-ELIGIBLE ACTIVITIES</b>																			
<b>A.1 Environmentally sustainable activities (taxonomy-aligned)</b>																			
Not found		0,00	0,0	0	0	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OpEx of environmentally sustainable activities (taxonomy-aligned) (A.1)		0,00	0,0															0%	
of which enabling		0,00	0,0	%	%	%	%	%	%									0%	
of which transitional		0,00	0,0	%														0%	
<b>A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)</b>																			
				EL;N/ EL(f)	EL;N/ EL(f)	EL;N/ EL(f)	EL;N/ EL(f)	EL;N/ EL(f)	EL;N/ EL(f)										
Computer programming, consultancy and related activities	CCA 8.2	10,47	14 %		EL													30%	
Manufacture of electrical and electronic equipment	CE 1.2	24,60	33%				EL											0%	
Provision of IT/OT data-driven solutions	CE 4.1	8,23	11%				EL											0%	
OpEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		43,29	59%	0%	24%	0%	75%	0%	0%									30%	
<b>Total (A1 + A2)</b>		<b>43,29</b>	<b>59%</b>	<b>0%</b>	<b>24%</b>	<b>0%</b>	<b>75%</b>	<b>0%</b>	<b>0%</b>									<b>30%</b>	
<b>B. TAXONOMY-NON ELIGIBLE ACTIVITIES</b>																			
OpEx of Taxonomy-non-eligible activities		30,16	41%																
<b>Total (A + B)</b>		<b>73,45</b>	<b>100%</b>																

## Personnel

The Bittium group employed an average of 601 people in January–December 2023 (641 employees). At the end of December 2023, the company had 526 employees (625 employees).

### Changes in the Company's Management

Laura Kauppinen (PhD. Psychology) was appointed as Chief Development Officer (CDO) of Bittium Corporation and a member of the management group as of June 1, 2023. In addition, her areas of responsibility include human resources, information management, operations including purchasing, logistics and production, as well as quality and environmental functions, and corporate technology services. She reports to CEO Johan Westermarck. Laura Kauppinen has previously worked as a Chief Development Officer at Citec and in several group management positions for the past 20 years, e.g., Executive Vice President, Corporate Development and Administration at Maintpartner and Vice President, HR and Communications at Eltel.

Antti Keränen (M.Sc. Econ) was appointed as Chief Financial Officer (CFO) of Bittium Corporation and a member of the management group as of June 1, 2023. He reports to CEO Johan Westermarck. Keränen joins Bittium from the capital investment company Sentica Partners, where he has worked for almost 15 years and served as Investment Director for the last 9 years. Before this, he has worked in corporate finance positions at Kaupthing Bank.

Pekka Kunnari, CFO of Bittium Corporation and a member of the management team, decided to leave the company and continue his career outside Bittium. Jari-Pekka Inna-

nen, Vice President, Engineering Services of Bittium Corporation, and a member of the management group, continued at Bittium in another assignment.

As of June 1, 2023, Bittium Corporation's management group included the following persons: CEO Johan Westermarck (Chairman), CFO Antti Keränen, CLO Kari Jokela, Vice President, IR, Communications and Marketing Karoliina Malmi, CDO Laura Kauppinen, and the heads of business units: Jari Sankala (Defense & Security), Tommi Kangas (Connectivity Solutions) and Antti Näykki (Medical Technologies).

On August 14, 2023, Jari Sankala, Senior Vice President, Defense & Security Business Unit of Bittium Corporation, and member of Bittium Corporation's management group, decided to leave the company and continue his career outside of Bittium. Tommi Kangas (Master of Engineering, machine automation), Senior Vice President, Connectivity Solutions Business Unit and a member of Bittium Corporation's management group took over to lead the Defense & Security Business Unit for the time being. While Kangas is focusing on the Defense & Security Business Unit, Jari Inget (MSc. Electrical Engineering) was appointed as the interim Vice President, Connectivity Solutions Business Unit. Inget represented the Connectivity Solutions Business Unit in Bittium Corporation's management group. Inget has a long history in the Connectivity Solutions Business Unit in various management positions, most recently as business director. Both Tommi Kangas and Jari Inget report to Johan Westermarck, CEO of Bittium Corporation.

As of August 14, 2023, Bittium Corporation's management group included following persons: CEO Johan Westermarck (Chairman), CFO Antti Keränen, CLO Kari Jokela, Karoliina Malmi Vice President, Investor Relations,

Communications and Marketing, CDO Laura Kauppinen, and the heads of business units: Antti Näykki, Senior Vice President, Medical Technologies; Tommi Kangas, Senior Vice President, Defense & Security (acting); and Jari Inget, Vice President, Connectivity Solutions (acting).

On December 21, 2023, the company announced that the nominations announced on August 14, 2023, of Tommi Kangas as interim Head of the Defense & Security Business Segment and Jari Inget as interim Head of the Engineering Services Business Segment, are no longer temporary, as both continue heading their respective Business Segments and as members of Bittium Corporation's Management Group.

As of December 21, 2023, Bittium Corporation's Management Group included CEO Johan Westermarck, CFO Antti Keränen, CLO Kari Jokela, Vice President, Communications and Sustainability Karoliina Malmi, CDO Laura Kauppinen, and the heads of the Business Segments: Antti Näykki, Senior Vice President, Medical Business Segment, Tommi Kangas, Senior Vice President, Defense & Security Business Segment, and Jari Inget, Vice President, Engineering Services Business Segment.

### Changes in the Company's Management after the Review Period

On January 24, 2024, Antti Näykki, Senior Vice President, Medical Business Segment, Bittium Corporation (Engineer, Embedded Systems) was appointed as Vice President, Group Business Development as of February 1, 2024. He continues as a member of Bittium Corporation's management group. In this role, Näykki focuses on building Bittium's long-term growth. He is also responsible for the management of the group's re-

search activities, supply chains and quality, as well as human resources and information management. Näykki was responsible for Bittium Corporation's business development during the years 2019–2021 and in his new role continues to advance the company's profitable growth strategy. Näykki reports to CEO Johan Westermarck.

On January 24, 2024, Laura Kauppinen, Bittium Corporation's Chief Development Officer (PhD, Psychology) was appointed as Senior Vice President, Medical Business Segment as of February 1, 2024. Kauppinen continues as a member of Bittium Corporation's management group. Kauppinen started at Bittium in June 2023 as Chief Development Officer, leading the group's strategy update and a significant change process with the target to turn Bittium into a healthy company. In her new role, Kauppinen focuses on implementing the updated strategy to enable profitable growth in the Medical business. Kauppinen reports to CEO Johan Westermarck.

As of February 1, 2024, Bittium Corporation's management group includes following persons: CEO Johan Westermarck (Chairman), CFO Antti Keränen, CLO Kari Jokela, Vice President Communications and Sustainability Karoliina Malmi, Vice President Group Business Development Antti Näykki, and the heads of Business Segments: Tommi Kangas, Senior Vice President, Defense & Security Business Segment, Jari Inget, Vice President, Engineering Services Business Segment, and Laura Kauppinen, Senior Vice President, Medical Business Segment.

## Incentive Systems

### Management Share-Based Incentive Plan

On June 19, 2023, the Board of Directors of Bittium Corporation decided on the establishment of a new share-based long-term incentive scheme for the Company's management. It comprises a Performance Share Plan ("PSP"). The objectives of the PSP are to align the interests of Bittium's management with those of the Company's shareholders and, thus, to promote shareholder value creation in the long term, to commit the management to achieving Bittium's strategic targets and the retention of Bittium's management.

The PSP consists of three annually commencing three-year performance share plans, PSP 2023–2025, PSP 2024–2026, and PSP 2025–2027, 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 2024–2026, and PSP 2025–2027, is, however, subject to a separate Board decision.

Eligible to participate in the first plan, PSP 2023–2025, are the members of Bittium's Management Group. The performance measure based on which the potential share reward under the first plan, PSP 2023–2025, will be paid is the revenue growth 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 and in cash.

The aggregate maximum number of shares to be paid based on the whole PSP is 750,000 shares (gross before the withholding of the applicable taxes). The aggregate gross value of the plan, estimated based on the volume-weighted average quotation of Bittium's share during the year 2022, is approximately EUR 3.5 million.

More information about the share-based incentive system can be found on the company's website at <https://www.bittium.com>.

### A One-Off Matching Share Plan for the CEO of Bittium Corporation

On April 27, 2023, the Board of Directors of Bittium Corporation decided on the establishment of a one-off fixed Matching Share Plan for the Chief Executive Officer (CEO) of Bittium. The aim of the Plan is through share ownership to align the interests of the CEO with those of the company's shareholders and to promote shareholder value creation in the long term as well as the retention of the CEO with the company.

The fixed Matching Share Plan was a one-off plan, in which the CEO was expected to purchase shares of Bittium Corporation with at least the value of 200,000 euros at a price formed in public trading on Nasdaq Helsinki. The shares were purchased after the publication date of Bittium Corporation's Business Review January–March 2023. Bittium Corporation matched the share investment by way of the CEO received matching shares without consideration with a net value of 100,000 euros. The matching shares were paid in listed shares of Bittium Corporation.

In addition to the matching shares, the company paid the payroll tax and other taxes and tax-like charges payable in connection with the Plan. Based on the current value of the company's share the estimated aggregate number of matching shares to be delivered under the Plan was approximately 25,000 shares. The matching shares received by the CEO based on the Plan will be subject to a transfer restriction (lock-up) of three years.

On June 1, 2023, Bittium Corporation announced that it had transferred a total of 23,854 of its own shares held by the company free of charge as a share bonus to the company's CEO based on a fixed-amount additional share program. The transfer of own shares was carried out as a directed free share issue decided by Bittium Corporation's Board of Directors. The Board's decision was based on the share issuance authorization given by the annual general meeting on April 12, 2023.

## Other Incentive Systems

In addition, the company has a performance bonus system, the reward of which is paid based on the achievement of goals, as well as a profit-sharing plan, which applies to all personnel, excluding those covered by other short-term bonus systems.

## 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 corresponded to approximately 9.80 percent of all the shares in the company as at the date of the General Meeting. Based on the authorization, the company's own shares may only be repurchased with unrestricted equity. The company's own shares may 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 the shares will be repurchased. Among other things, derivatives may be used in the acquisition. Own shares may be repurchased otherwise than in proportion to the shareholdings of the shareholders (directed repurchase).

The authorization revokes the authorization given by the Annual General Meeting on April 6, 2022, to decide on the repurchase of the company's own shares. The authorization is valid until June 30, 2024.

### 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 Finnish Companies Act as follows.

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

The authorization revokes the authorization given by the Annual General Meeting on April 6, 2022, to decide on the issuance of shares and the issuance of special rights entitling to shares referred to in Chapter 10, Section 1 of the Finnish Companies Act. The authorization is valid until June 30, 2024.

## Share and Share Capital

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.

## Share Buy-Back Program

The Board of Directors of Bittium Corporation has decided on May 17, 2023, to launch a share buy-back program concerning Bittium's own shares based on the authorization to repurchase own shares granted by the Annual General Meeting held on April 12, 2023.

Acquisitions of own shares started on May 19, 2023, and ended on October 3, 2023. The repurchases of the own shares began on May 19, 2023, and ended on October 3, 2023. During that period, Bittium repurchased 240,000 of its own shares for the total value of EUR 980,112.00 and an average price per share EUR 4.0838. The shares were

acquired at the market price quoted at the time of acquisition in trading organized by Nasdaq Helsinki Ltd on a regulated market. The shares acquired through the buy-back program are intended to be used for meeting obligations arising from share-based rewards to the Company's management under the Company's current and possible future incentive arrangements.

On December 31, 2023, Bittium held 216,146 treasury shares, which corresponds to around 0.61 percent of all the shares in the Company.

## Market Values of Shares

MARKET VALUES OF SHARES (EUR)	1-12/2023 12 months	1-12/2022 12 months
Highest	5.20	6.08
Lowest	3.31	3.47
Average	4.22	4.71
At the end of period	4.81	3.98
Market value of the stock (MEUR)	170.7	141.9
Trading value of shares (MEUR)	17.0	44.0
Number of shares traded (1,000 pcs)	4,021	9,346
Related to average number of shares, %	11.3	26.2

## Shareholders

LARGEST SHAREHOLDERS, DECEMBER 29, 2023	Number of shares	% of shares
1. Veikkolainen Erkki	1,822,112	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. Special Investment Fund Aktia Mikro Markka	700,000	2.0%
7. Skandinaviska Enskilda Banken AB	698,499	2.0%
8. Hildén Kai Jalmari	658,000	1.8%
9. Citibank Europe PLC	592,844	1.7%
10. Elo Mutual Pension Insurance Company	503,000	1.4%

At the end of December 2023, Bittium Corporation had 22,030 shareholders. The ten largest shareholders owned 29.6 percent of the shares. Private ownership was 69.6 percent. The percentage of foreign and nominee-registered shareholders was 4.0 percent at the end of December 2023.



### Flagging Notifications

During the review period, there were no changes related to ownership relationships that would have led to the notification obligation required by Section 2:9 of the Securities Market Act, i.e., the so-called flagging notification.

## The Board, Board Committees and the Auditor

The Annual General Meeting held on April 12, 2023, 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 organizing meeting held on April 12, 2023, the Board of Directors elected Mr. Erkki Veikkolainen as the Chairman of the Board of Directors. Further, the Board of Directors resolved that it will continue to have an 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 principal auditor. It was decided that the remuneration to the auditor shall be paid against the auditor's reasonable invoice.

## Corporate Governance Statement

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

## Dividend from 2022

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, 2022, a dividend of EUR 0.05 per share will be distributed. The dividend was paid to shareholders who on the dividend record date of April 14, 2023, were registered in the company's shareholders' register held by Euroclear Finland Oy. The dividend was paid on April 21, 2023. 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, 2023	Jan. 1–Dec. 31, 2022
<b>NET SALES</b>	1, 2	<b>75,247</b>	<b>82,464</b>
Other operating income	3	3,108	2,740
Change in work in progress and finished goods			
Work performed by the undertaking for its own purpose and capitalized		255	496
Raw materials		-20,198	-20,227
Personnel expenses	6	-39,094	-39,463
Depreciation	7	-9,479	-10,699
Other operating expenses	4	-14,168	-14,784
Share of results of the associated companies	14	32	-185
<b>OPERATING PROFIT</b>		<b>-4,296</b>	<b>342</b>
Financial income and expenses	8	-967	-761
<b>PROFIT BEFORE TAX</b>		<b>-5,263</b>	<b>-419</b>
Income tax	9	-168	672
<b>PROFIT FOR THE YEAR FROM CONTINUING OPERATIONS</b>		<b>-5,431</b>	<b>253</b>
Profit for the year from discontinued operations			
<b>PROFIT FOR THE YEAR</b>		<b>-5,431</b>	<b>253</b>
<b>Other comprehensive income:</b>			
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		-61	212
<b>TOTAL COMPREHENSIVE INCOME FOR THE YEAR</b>		<b>-5,492</b>	<b>466</b>
<b>Profit for the year attributable to</b>			
Equity holders of the parent		-5,431	253
<b>Total</b>		<b>-5,431</b>	<b>253</b>
<b>Total comprehensive income for the year attributable to</b>			
Equity holders of the parent		-5,492	466
<b>Total</b>		<b>-5,492</b>	<b>466</b>
<b>Earnings per share for profit attributable to the shareholders of the parent company</b>	10		
<b>Earnings per share from continuing operations, EUR</b>			
Basic earnings per share		-0.153	0.007
Diluted earnings per share		-0.153	0.007
<b>Earnings per share from discontinued operations, EUR</b>			
Basic earnings per share			
Diluted earnings per share			
<b>Earnings per share from continuing and discontinued operations, EUR</b>			
Basic earnings per share		-0.153	0.007
Diluted earnings per share		-0.153	0.007
Average number of shares, 1000 pcs		35,609	35,702
Average number of shares, diluted, 1000 pcs		35,609	35,702

# Consolidated Statement of Financial Position

1000 EUR	Notes	Dec. 31, 2023	Dec. 31, 2022
<b>Non-current assets</b>			
Property, plant, and equipment	11	18,221	19,664
Goodwill	12	5,828	5,836
Intangible assets	12	51,246	50,114
Investments in associated companies	14	1,042	1,010
Other financial assets	15	112	112
Non-current receivables	18	730	856
Deferred tax assets	16	7,415	7,416
<b>Total</b>		<b>84,595</b>	<b>85,008</b>
<b>Current assets</b>			
Inventories	17	26,621	24,196
Trade and other receivables	18	38,111	41,435
Financial assets at fair value through profit or loss	19	1	5,696
Cash and short-term deposits	20	8,331	13,320
<b>Total</b>		<b>73,064</b>	<b>84,647</b>
<b>Total assets</b>		<b>157,659</b>	<b>169,656</b>
<b>Equity and liabilities</b>			
Equity attributable to equity holders of the parent	21		
Share capital		12,941	12,941
Translation differences		1,257	1,318
Invested non-restricted equity fund		25,953	25,953
Retained earnings		67,433	75,561
<b>Total</b>		<b>107,585</b>	<b>115,774</b>
Non-controlling interests			
<b>Total equity</b>		<b>107,585</b>	<b>115,774</b>
<b>Non-current liabilities</b>			
Deferred tax liabilities	16	114	156
Interest-bearing loans and borrowings (non-current)	24	1,470	21,335
Other non-current liabilities, non-interest bearing	26	200	192
<b>Total</b>		<b>1,785</b>	<b>21,684</b>
<b>Current liabilities</b>			
Trade and other payables	26	22,397	26,427
Provisions	23	4,795	4,662
Interest-bearing loans and borrowings (current)	24	21,098	1,110
<b>Total</b>		<b>48,290</b>	<b>32,198</b>
<b>Total liabilities</b>		<b>50,075</b>	<b>53,882</b>
<b>Total equity and liabilities</b>		<b>157,659</b>	<b>169,656</b>

# Consolidated Statement of Cash Flows

1000 EUR	Notes	Jan. 1–Dec. 31, 2023	Jan. 1–Dec. 31, 2022
<b>Cash flow from operating activities</b>			
<b>Profit for the year from continuing operations</b>		<b>-5,431</b>	<b>253</b>
<b>Profit for the year from discontinued operations</b>			
Adjustments			
Effects of non-cash business activities	28	9,430	11,366
Finance costs	8	1,455	851
Finance income	8	-488	-90
Income tax	9	168	-672
Change in net working capital			
Change in short-term receivables	18	3,461	-1,613
Change in inventories	17	-2,267	-4,571
Change in interest-free short-term liabilities	26	-4,167	3,295
Interest paid on operating activities		-1,381	-850
Interest and dividends received from operating activities		488	90
Income taxes paid		-57	-38
<b>Net cash from operating activities</b>		<b>1,211</b>	<b>8,021</b>
<b>Cash flow from investing activities</b>			
Purchase of property, plant, and equipment	11	-329	-955
Purchase of intangible assets	12	-7,391	-7,092
<b>Net cash from investing activities</b>		<b>-7,720</b>	<b>-8,047</b>
<b>Cash flows from financing activities</b>			
Payment of finance lease liabilities	24		
Dividend paid and capital repayment	24, 25	-1,344	-1,425
Dividend paid and capital repayment		-1,785	-1,428
Purchases of own shares		-1,046	-144
<b>Net cash from financing activities</b>		<b>-4,176</b>	<b>-2,997</b>
<b>Net change in cash and cash equivalents</b>	20	<b>-10,684</b>	<b>-3,023</b>
Cash and cash equivalents on 1 January		19,016	22,039
Change in fair value of investments			
<b>Cash and cash equivalents at the end of the year</b>		<b>8,332</b>	<b>19,016</b>

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

# Consolidated Statement of Changes in Equity

1000 EUR	Equity attributable to equity holders of the parent					Total
	Share capital	Invested non-restricted equity fund	Translation difference	Retained earnings	Non-controlling interests	
<b>Shareholders' equity Jan. 1, 2023</b>	12,941	25,953	1,318	75,561	0	115,774
<b>Comprehensive income for the period</b>						
Profit for the period				-5,431		-5,431
Exchange differences on translating foreign operations			-61			-61
<b>Total comprehensive income for the period</b>	0	0	-61	-5,431	0	-5,492
<b>Transactions between the shareholders</b>						
Dividend distribution				-1,785		-1,785
Purchases of own shares				-1,046		-1,046
Share-related compensation				165		165
<b>Total transactions between the shareholders</b>				-2,666		-2,666
<b>Other changes</b>				-31		-31
<b>Shareholders' equity Dec. 31, 2023</b>	12,941	25,953	1,257	67,433	0	107,585
<b>Shareholders' equity Jan. 1, 2022</b>	12,941	25,953	1,106	76,814	0	116,815
<b>Comprehensive income for the period</b>						
Profit for the period				253		253
Exchange differences on translating foreign operations			212			212
<b>Total comprehensive income for the period</b>	0	0	212	253	0	466
<b>Transactions between the shareholders</b>						
Dividend distribution				-1,428		-1,428
Purchases of own shares				-144		-144
Share-related compensation				74		74
<b>Total transactions between the shareholders</b>				-1,498		-1,498
<b>Other changes</b>				-9		-9
<b>Shareholders' equity Dec. 31, 2022</b>	12,941	25,953	1,318	75,561	0	115,774

# 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, 2023. 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 2023 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 the 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 contract 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 reviews 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 con-

tracts 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 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.

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.

### 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 oth-

er 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, assess-

ing 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 product and services areas supporting each other. These areas are as follows: Defence & Security, Engineering Services, and Medical.

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, 2023

1000 EUR	Finland	Other Europe	Americas	Asia	Eliminations	Group total
<b>Net sales</b>						
Sales to external customers	32,102	21,401	20,894	850		75,247
Non-current assets	76,968		213			77,180
<b>Total non-current assets *)</b>	<b>76,968</b>		<b>213</b>			<b>77,180</b>
*) does not include deferred tax assets						
<b>Capital expenditure</b>						
Tangible assets	-1,443					-1,443
Intangible assets	1,132					1,132
Investments	32					32
Goodwill			-8			-8
Non-current receivables	-125					-125

### Geographical areas

Jan. 1–Dec. 31, 2022

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

### Information of primary customers

Group's revenues from the 10 largest customers in period 1.1.–31.12.2023 were EUR 54.8 million (EUR 62.0 million in 2022) representing 72.8 percent of the net sales (75.1 percent in 2022).

Group had two customers in period 1.1.–31.12.2023 having income separately over 10 percent of Group's revenue. Income from these customers were EUR 20.8 million and EUR 16.7 million.

# Notes to the Consolidated Financial Statements

## 2. NET SALES

1000 EUR	2023	2022
Services	29,456	25,054
Products	45,791	57,410
Other		
<b>Total</b>	<b>75,247</b>	<b>82,464</b>

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	8,399	9,188
Net sales other	66,848	73,276
<b>Total</b>	<b>75,247</b>	<b>82,464</b>
Income recognized over time based on the stage of completion of long-term construction contracts	8,399	9,188
Revenue recognized from long-term construction contracts in progress amounted to	6,203	4,954
Advances received from long-term construction contracts recognized in the balance sheet amounted to	718	772
Receivables recognized from long-term construction contracts amounted to	2,162	1,382

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

**3. OTHER OPERATING INCOME**

<b>1000 EUR</b>	<b>2023</b>	<b>2022</b>
Government grants	2,998	2,635
Other income	110	105
<b>Total</b>	<b>3,108</b>	<b>2,740</b>

**4. OTHER OPERATING EXPENSES**

External services	1,961	1,530
Voluntary staff expenses	1,597	1,190
Premises expenses	1,126	1,094
Travel expenses	1,111	1,048
IT expenses	3,304	3,096
Other expenses	5,070	6,826
<b>Total</b>	<b>14,168</b>	<b>14,784</b>

Expense relating to short-term leases under IFRS 16	163	157
More information about Leases in Note 11.		

**Auditor's charges****Ernst & Young**

Auditing	58	67
Tax advice		1
Other services	13	4
<b>Total</b>	<b>71</b>	<b>72</b>

**Others**

Auditing	29	24
Tax advice	10	7
Other services	1	
<b>Total</b>	<b>40</b>	<b>30</b>

# Notes to the Consolidated Financial Statements

1000 EUR	2023	2022
<b>5. DEPRECIATIONS AND IMPAIRMENTS</b>		
<b>Depreciations</b>		
Intangible assets		
Capitalized development expenditure	5,608	5,897
Intangible rights	525	430
Customer relations and technology	119	173
Other intangible assets	49	289
Tangible assets		
Buildings and constructions	759	753
Machinery and equipment	2,418	3,157
<b>Total</b>	<b>9,479</b>	<b>10,699</b>
<b>Depreciation on property, plant, and equipment acquired by leases</b>		
Buildings and constructions	364	358
Machinery and equipment	978	1,063
More information about Leases in Note 11.		
<b>6. EMPLOYEE BENEFIT EXPENSES AND NUMBER OF PERSONNEL</b>		
<b>Number of personnel</b>		
Average number of personnel during the fiscal period		
Continuing operations	601	641
<b>Personnel expenses 1000 EUR</b>		
Personnel expenses		
Managing Director	539	353
Board of Directors *	175	176
Other salaries and wages	36,672	36,650
Salaries capitalized to development expenses	-6,037	-5,399
<b>Total</b>	<b>31,350</b>	<b>31,780</b>
Pension expenses, defined contribution plans	6,411	6,422
Other personnel expenses	1,333	1,261
<b>Total</b>	<b>39,094</b>	<b>39,463</b>

\*Including the share-based incentives. Further information in the Note 31.



1000 EUR	2023	2022
<b>7. RESEARCH AND DEVELOPMENT EXPENSES</b>		
The research and development expenses total	20,229	22,287
Capitalized to the balance sheet	-7,244	-6,647
Recognition as an asset	5,608	5,897
<b>The expensed research and development expenses recognized in the income statement amounted to</b>	<b>18,593</b>	<b>21,537</b>
<b>8. FINANCIAL EXPENSES (NET)</b>		
Interest expenses	-890	-390
Interest income	191	17
Dividend income		0
Exchange gains and losses	-330	-309
Change of financial assets and liabilities at fair value through profit or loss		
Other financial expenses	-235	-152
Other financial income	297	72
<b>Total</b>	<b>-967</b>	<b>-761</b>
Interest expenses on lease liabilities under IFRS 16	-50	-22
More information about Leases in Note 11.		
<b>9. INCOME TAXES</b>		
Income taxes, current year	-163	-164
Other taxes	-18	-8
Income taxes, previous years	-17	-18
Deferred taxes	30	862
<b>Total</b>	<b>-168</b>	<b>672</b>
A reconciliation between the effective tax rate and domestic tax rate (20.0 percent) of the Group:		
<b>Profit before taxes</b>	<b>-5,431</b>	<b>-419</b>
Tax at the domestic tax rate	604	198
Effect of tax rates of foreign subsidiaries	-2	-6
Taxes for prior years	-17	-18
Tax free income	802	190
Non-deductible expenses	-418	-1,026
Utilization of deferred tax assets from previous years	303	529
Reassessment of deferred tax assets	30	862
The deferred tax assets from tax losses	-1,452	
Others	-18	-58
<b>Income taxes in the consolidated income statement</b>	<b>-168</b>	<b>672</b>

# Notes to the Consolidated Financial Statements

	2023	2022
<b>10. EARNINGS PER SHARE</b>		
<b>Basic</b>		
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)	-5,431	253
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)	-5,431	253
Weighted average number of ordinary shares during the financial year (1,000 PCS)	35,609	35,702
<b>Basic earnings per share, continuing operations, EUR</b>	<b>-0.153</b>	<b>0.007</b>
<b>Basic earnings per share, discontinued operations, EUR</b>	<b>0.000</b>	<b>0.000</b>
<b>Basic earnings per share, continuing and discontinued operations, EUR</b>	<b>-0.153</b>	<b>0.007</b>
<b>Diluted</b>		
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)	-5,431	253
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)	-5,431	253
Weighted average number of ordinary shares during the financial year (1,000 PCS)	35,609	35,702
Effect of dilution (1,000 PCS)		
Weighted average number of ordinary shares during the financial year (1,000 PCS)	35,609	35,702
<b>Diluted earnings per share, continuing operations, EUR</b>	<b>-0.153</b>	<b>0.007</b>
<b>Diluted earnings per share, discontinued operations, EUR</b>	<b>0.000</b>	<b>0.000</b>
<b>Diluted earnings per share, continuing and discontinued operations, EUR</b>	<b>-0.153</b>	<b>0.007</b>

## 11. 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, 2023	Dec. 31, 2022
<b>Land and water</b>		
Acquisition cost Jan. 1	1,091	1,091
Additions during the period		
<b>Acquisition cost at the end of the period</b>	<b>1,091</b>	<b>1,091</b>
<b>Carrying amount at the end of the period</b>	<b>1,091</b>	<b>1,091</b>
<b>Buildings and constructsures</b>		
Acquisition cost Jan. 1	20,170	19,450
Translation differences	26	23
Additions during the period	776	697
Disposals during the period	-40	
Acquisition of business unit		
Transfer to assets		
<b>Acquisition cost at the end of the period</b>	<b>20,932</b>	<b>20,170</b>
Accumulated depreciation Jan. 1	-6,616	-5,840
Translation differences	-26	-23
Depreciation for the period	-759	-753
Depreciations on disposals		
<b>Carrying amount at the end of the period</b>	<b>13,530</b>	<b>13,554</b>
No revaluations or capitalizations of interest costs have been done.		
<b>Machinery and equipment</b>		
Acquisition cost Jan. 1	64,288	62,297
Translation differences	19	-8
Additions during the period	1,149	2,010
Acquisition of business unit		
Disposals during the period	-86	-11
Transfer to assets		
<b>Acquisition cost at the end of the period</b>	<b>65,370</b>	<b>64,288</b>
Accumulated depreciation Jan. 1	-59,357	-56,195
Translation differences	-19	8
Depreciation for the period	-2,483	-3,170
Depreciations on disposals		
<b>Carrying amount at the end of the period</b>	<b>3,511</b>	<b>4,931</b>
<b>Other tangible assets</b>		
Acquisition cost Jan. 1	88	88
Additions during the period		
Disposals during the period		
<b>Acquisition cost at the end of the period</b>	<b>88</b>	<b>88</b>
Translation differences		
Accumulated depreciation Jan. 1		
Depreciation for the period		
<b>Carrying amount at the end of the period</b>	<b>88</b>	<b>88</b>

## Notes to the Consolidated Financial Statements

1000 EUR	Dec. 31, 2023	Dec. 31, 2022
<b>Property, plant, and equipment total</b>		
Acquisition cost Jan. 1	85,637	82,925
Translation differences	45	15
Additions during the period	1,925	2,707
Acquisition of business unit	0	0
Disposals during the period	-126	-11
Transfer to assets	0	0
<b>Acquisition cost at the end of the period</b>	<b>87,481</b>	<b>85,637</b>
Accumulated depreciation Jan. 1	-65,973	-62,035
Translation differences	-45	-15
Depreciation for the period	-3,242	-3,923
Depreciations on disposals	0	0
<b>Carrying amount at the end of the period</b>	<b>18,221</b>	<b>19,664</b>
<b>Leases</b>		
The Group had the following amounts of property, plant and equipment acquired by finance leases:		
<b>Machinery and equipment</b>		
Acquisition cost	12,614	11,883
Accumulated depreciation	-11,397	-10,419
Carrying amount at the end of the period	1,216	1,464
<b>Buildings and constructsures</b>		
Acquisition cost	3,279	2,545
Accumulated depreciation	-1,950	-1,586
Carrying amount at the end of the period	1,329	959

Additions of property, plant, and equipment include assets acquired by leases of EUR 1.6 million in 1.1.–31.12.2023 (EUR 1.6 million in 2022).

## 12. INTANGIBLE ASSETS

1000 EUR	Dec. 31, 2023	Dec. 31, 2022
<b>Capitalized development expenses</b>		
Acquisition cost Jan. 1	74,601	67,954
Additions during the period	7,244	6,647
Acquisition of business unit		
<b>Acquisition cost at the end of the period</b>	<b>81,845</b>	<b>74,601</b>
Accumulated depreciation Jan. 1	-25,784	-19,887
Depreciation for the period	-5,608	-5,897
<b>Carrying amount at the end of the period</b>	<b>50,452</b>	<b>48,817</b>
<b>Intangible rights</b>		
Acquisition cost Jan. 1	6,032	5,719
Additions during the period	141	313
Disposals during the period		
Acquisition of business unit		
Transfer to assets		
<b>Acquisition cost at the end of the period</b>	<b>6,172</b>	<b>6,032</b>
Accumulated depreciation Jan. 1	-5,117	-4,686
Depreciation for the period	-450	-430
<b>Carrying amount at the end of the period</b>	<b>606</b>	<b>915</b>
<b>Customer relations and technology</b>		
Acquisition cost Jan. 1	1,780	1,780
Acquisition of business unit		
<b>Acquisition cost at the end of the period</b>	<b>1,780</b>	<b>1,780</b>
Accumulated depreciation Jan. 1	-1,528	-1,356
Depreciation for the period	-119	-173
<b>Carrying amount at the end of the period</b>	<b>133</b>	<b>252</b>

## Notes to the Consolidated Financial Statements

1000 EUR	Dec. 31, 2023	Dec. 31, 2022
<b>Other intangible assets</b>		
Acquisition cost Jan. 1	4,882	4,876
Translation differences	-4	6
Additions during the period		
Transfer to assets		
<b>Acquisition cost at the end of the period</b>	<b>4,878</b>	<b>4,882</b>
Accumulated depreciation Jan. 1	-4,752	-4,458
Translation differences	4	-6
Depreciation for the period	-75	-289
<b>Carrying amount at the end of the period</b>	<b>54</b>	<b>130</b>
<b>Intangible assets total</b>		
Acquisition cost Jan. 1	87,295	80,329
Translation differences	-4	6
Additions during the period	7,385	6,960
Acquisition of business unit	0	0
Disposals during the period	0	0
Transfer to assets	0	0
<b>Acquisition cost at the end of the period</b>	<b>94,676</b>	<b>87,295</b>
Accumulated depreciation Jan. 1	-37,181	-30,387
Translation differences	4	-6
Depreciation for the period	-6,252	-6,788
<b>Carrying amount at the end of the period</b>	<b>51,246</b>	<b>50,114</b>
<b>Goodwill</b>		
Acquisition cost Jan. 1	5,836	5,823
Translation differences	-8	13
Additions during the period		
Disposals during the period		
<b>Carrying amount at the end of the period</b>	<b>5,828</b>	<b>5,836</b>

### Impairment Test

Preparation of impairment analysis requires 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 investment needs and achievable cost levels.

The cash flow forecasts employed in impairment test calculations are based on the budgets for 2024 and the Long Range Plans (LRP) for 2025-2028 approved by management for the strategical period. Cash flows beyond five-year period are calculated by using the terminal value method. Future cash flows are exposed to the risks that are discussed in section "Risks and uncertainties" in the Report by the Board of Directors.

The used discount rate in impairment testing is Weighted Average Cost of Cap-

ital (WACC) before tax defined for Bittium. WACC defines average costs of equity and debt by noticing the risks belonging to the 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 9.9% (9.8% in 2022). Valuation have applied the perpetual growth of 2%.

In 2023 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 impairment test is done when needed, but at least once a year. Impairment tests made for 2023 financial statements did not indicate need for impairment bookings. Recoverable amounts exceed significantly the book value of goodwill and other

assets. The terminal value represents 78% of business value.

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 believe 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

## 13. ACQUISITIONS

### Acquisitions in 2023

In 2023 or in the comparative period 2022 the Group did not have acquisitions to be reported according to the IFRS standards.



#### 14. SHARES IN ASSOCIATED COMPANIES

Bittium Group owns 25% of Coronaria Analyysipalvelut Oy shares at the end of 2023. 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 2023. 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	2023	2022
<b>Shares in associated companies</b>		
Coronaria Analyysipalvelut Oy	1,021	988
evismo AG	0	0
Other associated companies	22	22
<b>Assets total</b>	<b>1,042</b>	<b>1,010</b>
Coronaria Analyysipalvelut Oy		
Current assets	688	494
Non-current assets	1,534	1,725
Non-current liabilities	51	76
Turnover	3,631	4,192
Net profit	154	111
evismo AG		
Current assets	532	261
Non-current assets	785	61
Non-current liabilities	2,365	1,045
Turnover	1,172	700
Net profit	-471	-650
<b>Shares in associated companies</b>		
Acquisition cost Jan. 1	1,010	1,283
Translation differences	0	-10
Additions during the period	38	28
Disposals during the period	-6	-291
<b>Carrying amount at the end of the period</b>	<b>1,042</b>	<b>1,010</b>

# Notes to the Consolidated Financial Statements

## 15. OTHER FINANCIAL ASSETS

1000 EUR	2023	2022
At 1 January	112	112
Additions		
Disposals		
<b>At the closing date</b>	<b>112</b>	<b>112</b>

## 16. DEFERRED TAX LIABILITIES AND ASSETS

1000 EUR	Jan. 1, 2023	Recognized in the income statement	Acquisitions and disposals of subsidiaries	Dec. 31, 2023
<b>Deferred tax assets</b>				
Unutilized losses in taxation	526			526
Other items	6,890	-1		6,889
<b>Total</b>	<b>7,416</b>	<b>-1</b>		<b>7,415</b>

On December 31, 2023 the Group had 64.7 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 12.9 million euros. The aging of these tax losses begins from year 2024.

1000 EUR	Jan. 1, 2023	Recognized in the income statement	Acquisitions and disposals of subsidiaries	Dec. 31, 2023
<b>Deferred tax liabilities</b>				
Customer and technology assets	156	-42	0	114
<b>Total</b>	<b>156</b>	<b>-42</b>	<b>0</b>	<b>114</b>

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

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
<b>Deferred tax liabilities</b>				
Customer and technology assets	208	-52	0	156
<b>Total</b>	<b>208</b>	<b>-52</b>	<b>0</b>	<b>156</b>

# Notes to the Consolidated Financial Statements

## 17. INVENTORIES

1000 EUR	Dec. 31, 2023	Dec. 31, 2022
Raw materials and supplies	17,790	18,255
Work in progress	4,395	3,251
Finished products	4,436	2,690
Other inventories		
<b>Total</b>	<b>26,621</b>	<b>24,196</b>

During the financial year 1.1.–31.12.2023, group has booked non-recurring write-down of EUR 2.5 million due to the impairment of inventory.

## 18. TRADE AND OTHER RECEIVABLES (CURRENT)

1000 EUR	Dec. 31, 2023	Dec. 31, 2022
Non-current receivables	730	856
<b>Non-current receivables total</b>	<b>730</b>	<b>856</b>
Current receivables:		
Trade receivables	32,813	37,242
Receivables from construction contracts	2,162	1,382
Prepaid expenses and accrued income	2,367	1,953
Other receivables	769	858
<b>Current receivables total</b>	<b>38,111</b>	<b>41,435</b>

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 0.0 million 2022).

Age distribution of accounts receivable		
Current	31,196	35,598
Aged Overdue Amounts		
0–3 months	1,580	1,594
4–6 months	4	49
7–12 months	33	2
> 12 months		
<b>Total</b>	<b>32,813</b>	<b>37,242</b>

**19. FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS**

1000 EUR	Dec. 31, 2023	Dec. 31, 2022
<b>Interest rate funds</b>		
Balance sheet value on Jan. 1	5,696	5,732
Disposals	-5,695	
Changes in fair value		-36
<b>Balance sheet value at the end of the period</b>	<b>1</b>	<b>5,696</b>
<b>Financial assets at fair value through profit or loss total</b>		
Balance sheet value on Jan. 1	5,696	5,732
Disposals	-5,695	
Changes in fair value		-36
<b>Balance sheet value at the end of the period</b>	<b>1</b>	<b>5,696</b>
<b>20. CASH AND SHORT-TERM DEPOSITS</b>		
Cash and short-term deposits	8,331	13,320
<b>Total</b>	<b>8,331</b>	<b>13,320</b>
<b>Cash and cash equivalents at the consolidated cash flow statement consist of:</b>		
Interest rate funds	1	5,696
Cash and short-term deposits	8,331	13,320
<b>Total</b>	<b>8,332</b>	<b>19,016</b>

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

# Notes to the Consolidated Financial Statements

## 21. 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, 2022	35,702	12,941	0	25,953	38,894
On December 31, 2023	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 has 216,146 own shares in its possession.

### Translation Differences

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

### Dividends

The Board of Directors proposes to the Annual General Meeting that a dividend of EUR 0.03 per share be paid based on the balance

sheet to be adopted for the financial year ended December 31, 2023.

The Board of Directors furthermore proposes that the Annual General Meeting would authorize the Board of Directors to decide, at its discretion, on the payment of an extraordinary dividend of EUR 0.03 per share, by October 31, 2024. The Board of Directors expects that this discretionary extraordinary dividend will be paid, unless there is a significant deterioration in the business environment during 2024.

## 22. SHARE-BASED PAYMENT PLANS

### Share-based Remuneration of the Board of Directors

During the financial year 2023, 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 2023

Form of the reward	Shares
Grant date	May 3, 2023
Total amount of executed shares	14,611
Share price at the grant date, EUR	4.25
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

The Board of Directors of Bittium Corporation has decided on the establishment of a one-off fixed Matching Share Plan for the Chief Executive Officer (CEO) of Bittium (below also the "Plan"). The fixed Matching Share Plan is a one-off plan, in which the CEO is expected to purchase shares of Bittium Corporation with at least the value of 200,000 euros at a price formed in public trading on Nasdaq Helsinki. Bittium Corporation will match the share investment by way of the CEO receiving matching shares without consideration with a net value of 100,000 euros. The matching shares will be paid in listed shares of Bittium Corporation. The matching shares received by the CEO based on the Plan will be subject to a transfer restriction (lock-up) of three years.

### Share-based Remuneration of the Management paid in financial year 2023

Form of the reward	Shares
Grant date	June 1, 2023
Total amount of executed shares	23,854
Share price at the grant date, EUR	4.16
Total expenses of the reward, EUR million	0.099
Vesting conditions	Ownership of the shares was transferred to the CEO at once but the matching shares will be subject to a transfer restriction (lock-up) of three years.
Execution	In shares

### Share-based Remuneration of the Management, PSP 2023–2025

The Board of Directors of Bittium Corporation has decided on the establishment of a new share-based long-term incentive scheme for the Company's management. It comprises a Performance Share Plan ("PSP"). The PSP consists of three annually commencing three-year performance share plans, PSP 2023–2025, PSP 2024–2026 and PSP 2025–2027, 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 2024–2026 and PSP 2025–2027, is, however, subject to a separate Board decision. Eligible to participate in the first plan, PSP 2023–2025, are the members of Bittium's Management Group. The performance measure based on which the potential share reward under the first plan, PSP 2023–2025, will be paid is the revenue growth 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 and in cash.

Form of the reward	Shares
Grant date	June 22, 2023
Total amount of the shares at the most	250,000
Share price at the grant date, EUR	4.365
Total expenses of the reward at the most, EUR million	1.1
Execution	In shares

The performance measure for share-based incentive scheme PSP 2023–2025 was not reached and the reward was not booked in financial year 1.1.–31.12.2023.

# Notes to the Consolidated Financial Statements

## 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



**23. PROVISIONS**

1000 EUR	Guarantee provisions	Expected credit losses	Others	Total
December 31, 2022	4,280	365	16	4,661
Increase in provisions	1,866			1,866
Utilized provisions	-1,668		-8	-1,676
Reversal of utilized provisions	0	-56		-56
<b>December 31, 2022</b>	<b>4,478</b>	<b>309</b>	<b>9</b>	<b>4,796</b>
Current provisions	4,478	309	9	4,796
<b>Total</b>	<b>4,478</b>	<b>309</b>	<b>9</b>	<b>4,796</b>

**24. FINANCIAL LIABILITIES**

1000 EUR	Dec. 31, 2023	Dec. 31, 2022
<b>Non-current loans</b>		
Non-current loans from financial institutions		20,000
Finance lease liabilities	1,470	1,335
<b>Total</b>	<b>1,470</b>	<b>21,335</b>
<b>Current loans</b>		
Current loans from financial institutions	20,000	
Lease liabilities	1,098	1,110
<b>Total</b>	<b>21,098</b>	<b>1,110</b>
Repayment schedule of long-term loans:		
2023		1,110
2024	21,098	20,703
2025	665	350
2026	395	149
2027	273	58
Later	137	76
<b>Total</b>	<b>22,568</b>	<b>22,446</b>

## Notes to the Consolidated Financial Statements

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

<b>1000 EUR</b>	<b>Dec. 31, 2023</b>	<b>Dec. 31, 2022</b>
EUR	1,470	21,335
<b>Total</b>	<b>1,470</b>	<b>21,335</b>

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

<b>1000 EUR</b>	<b>Dec. 31, 2023</b>	<b>Dec. 31, 2022</b>
EUR	21,098	1,110
<b>Total</b>	<b>21,098</b>	<b>1,110</b>

Maturities of the finance lease liabilities:

<b>1000 EUR</b>	<b>Dec. 31, 2023</b>	<b>Dec. 31, 2022</b>
Lease liabilities - Minimum lease payments		
Within one year	1,225	1,159
After one year but no more than five years	1,413	1,306
After five years	92	96
Lease liabilities - Present value of minimum lease payments	2,568	2,446
Within one year	1,098	1,110
After one year but no more than five years	1,397	1,260
After five years	73	76
Future finance charges	162	115
<b>Total amount of finance lease liabilities</b>	<b>2,730</b>	<b>2,561</b>

**25. CHANGES IN LIABILITIES ARISING FROM FINANCING ACTIVITIES**

1000 EUR	Jan. 1, 2023	Cash flows	New leases	Dec 31, 2023
Lease and financing contracts	22,446	-1,344	1,467	22,568
<b>Total</b>	<b>22,446</b>	<b>-1,344</b>	<b>1,467</b>	<b>22,568</b>

**26. TRADE AND OTHER PAYABLES**

1000 EUR	Dec. 31, 2023	Dec. 31, 2022
<b>Non-current liabilities</b>		
<b>Other non-current liabilities, non-interest bearing</b>		
Non-current advances received		
Other non-current liabilities, non-interest bearing	200	192
<b>Total</b>	<b>200</b>	<b>192</b>
<b>Current liabilities</b>		
<b>Trade and other payables</b>		
Trade liabilities	5,984	10,251
Accrued liabilities, deferred income	10,342	9,394
Other liabilities	6,070	6,782
<b>Total</b>	<b>22,397</b>	<b>26,427</b>

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.

# Notes to the Consolidated Financial Statements

## 27. 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 2023. At the end of the financial period, the counter value of the hedged net position was EUR 2.2 million. During the financial year, the amount of the hedged position has been changing between EUR 1.5–3.5 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, 2023, was EUR 2.5 million (EUR 4.5 million in 2022) from which dollar-denominated equities of foreign subsidiaries were EUR 2.2 million (EUR 4.2 million in 2022).

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	2023	2022
<b>Forward contracts</b>		
Market value	19	33
Nominal value	2,200	1,400

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

1000 EUR	2023	2022
Long-term assets	0	0
Long-term liabilities	0	0
Current assets	5,345	8,049
Current liabilities	3,118	3,825

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.

1000 EUR	Changes in income statement before tax		Changes in equity before tax	
	2023	2022	2023	2022
EUR appreciates	-200	-400	-200	-400
EUR depreciates	200	500	200	500

# 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	2023	2022
Fixed interest rate debts	2,568	2,446

The table below describes the interest rate risk of debts should there have been a  $\pm 1\%$  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.

1000 EUR	Changes in income statement before tax		Changes in equity before tax	
	2023	2022	2023	2022
Loan stock January, 1	22,400	22,300		
Loan stock December, 31	22,600	22,400		
Average loan stock	22,500	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.

	2023	2022
Stock shares	0.0%	0.0%
Bonds	0.0%	76.8%
Money market investments	100.0%	23.2%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

The combined value of the above instruments during the financial period has ranged from approximately EUR 0.0 to EUR 5.8 million. At the closing date their value was approximately EUR 0.0 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  $\pm 1\%$  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.

1000 EUR	Changes in income statement before tax		Changes in equity before tax	
	2023	2022	2023	2022
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 its deposit, financial investment and hedging activities Bittium operates only with well-known partners who have good credit rating.

About 82% 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 0.0 million in 2022). The amount of loans granted to affiliated companies were EUR 0.2 million at the end of 2023 (EUR 0.1 million in 2022). Group did not have capital loans granted outside of the Group at the end of 2023 (EUR 0.0 million in 2022).

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 started negotiations to arrange refinancing for the financial instruments due on 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 24.

#### 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 2023 was EUR 14.2 million (EUR 3.4 million in 2022) and net gearing was 13.2% (3.0% in 2022). The Group's solvency ratio at the end of 2022 was 69.7% (69.7% in 2022).

# 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 2023	Fair value 2023	Book value 2022	Fair value 2022
Financial assets					
Other financial assets	15	112	112	112	112
Non-Current receivables	18	730	730	856	856
Trade receivables	18	32,816	32,816	37,242	37,242
Financial assets at fair value through profit or loss	19	1	1	5,696	5,696
Cash and cash equivalents	20	8,329	8,329	13,320	13,320
Currency forwards	19	19	19	33	33
Financial liabilities					
Bank loans	24	20,000	20,000	20,000	20,000
Trade payables and advances received	25	9,059	9,059	13,910	13,910
Currency forwards	26	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.



**28. ADJUSTMENTS TO NET CASH FROM OPERATING ACTIVITIES**

<b>1000 EUR</b>	<b>Dec. 31, 2023</b>	<b>Dec. 31, 2022</b>
Business transactions without payments		
Depreciations	9,479	10,699
Share of profits in associated companies	-32	185
Other adjustments	-17	483
<b>Total</b>	<b>9,430</b>	<b>11,366</b>

**29. 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:

<b>1000 EUR</b>	<b>Dec. 31, 2023</b>	<b>Dec. 31, 2022</b>
Not later than one year	53	63
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

## 30. SECURITIES AND CONTINGENT LIABILITIES

1000 EUR	Dec. 31, 2023	Dec. 31, 2022
Against own liabilities		
Floating charges		
Guarantee limits	2,989	2,992
Other contractual liabilities		
Falling due in the next year	2,311	2,504
Falling due after one year	861	708
Mortgages are pledged for liabilities totaled		
Other liabilities (guarantees issued)		
Material purchase commitments	8,152	13,912

## 31. RELATED PARTY DISCLOSURES

The Group has the following structure:

	Country of incorporation	Owned by Parent %	Owned by Group %
<b>Parent</b>			
Bittium Oyj	Finland		
<b>Subsidiaries</b>			
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		2023	2022
Associated companies			
	Net sales	1,462	817
	Receivables	953	1,057
	Debts	150	204

Related party transactions have occurred based on market terms.

1000 EUR	2023	2022
<b>Employee benefits for key management</b>		
Salaries and remuneration		
Managing director of the parent		
Hannu Huttunen 1.1.–31.12.2022, 1.1.–31.3.2023	62	298
Johan Westermarck, 1.4.–31.12.2023	265	
<b>Total</b>	<b>328</b>	<b>298</b>
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.–31.12.2022, 1.1.–31.12.2023	32	32
Riitta Tiuraniemi 1.1.–31.12.2022, 1.1.–31.12.2023	21	22
Pekka Kempainen 1.1.–31.12.2022, 1.1.–31.12.2023	18	19
Petri Toljamo 1.1.–31.12.2022, 1.1.–31.12.2023	20	21
Veli-Pekka Paloranta 1.1.–31.12.2022, 1.1.–31.12.2023	20	20
<b>Total</b>	<b>112</b>	<b>114</b>
<b>Share-based incentives</b>		
Board of Directors	62	62
Management	212	142
<b>Total</b>	<b>274</b>	<b>204</b>
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.		
<b>Members of the group executive board</b>	<b>1,069</b>	<b>1,008</b>

**Loans and guarantees to related party**

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

# Notes to the Consolidated Financial Statements

## 32. KEY RATIOS

	IFRS 2023	IFRS 2022	IFRS 2021	IFRS 2020	IFRS 2019
<b>INCOME STATEMENT, MEUR</b>					
Net sales, MEUR	75.2	82.5	86.9	78.4	75.2
Net sales change, %	-8.8	-5.1	10.8	4.2	19.7
Operating profit/loss, MEUR	-4.3	0.3	3.2	2.1	6.3
% of net sales	-5.7	0.4	3.7	2.7	8.4
Profit/loss for continuing operations before taxes, MEUR	-5.3	-0.4	2.5	1.6	5.9
% of net sales	-7.0	-0.5	2.9	2.1	7.9
Profit for the year from continuing operations, MEUR	-5.4	0.3	3.3	2.2	7.6
% of net sales	-7.2	0.0	3.8	2.8	10.2
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	-5.4	0.3	3.3	2.2	7.6
% of net sales	-7.2	0.0	3.8	2.8	10.2
<b>BALANCE SHEET, MEUR</b>					
Non-current assets	84.6	85.0	85.9	86.4	80.5
Inventories	26.6	24.2	18.8	20.9	18.2
Current assets	46.4	60.5	61.4	50.7	55.6
Shareholders' equity	107.6	115.8	116.8	114.2	112.3
Non-current liabilities	1.8	21.7	21.5	21.9	22.1
Current liabilities	48.3	32.2	27.8	21.8	19.9
Balance sheet total	157.7	169.7	166.1	158.0	154.2

	IFRS 2023	IFRS 2022	IFRS 2021	IFRS 2020	IFRS 2019
<b>PROFITABILITY AND OTHER KEY FIGURES</b>					
Return on equity, % (ROE)	-4.9	0.2	2.9	1.9	6.9
Return on investment, % (ROI)	-3.0	0.3	2.3	1.6	5.0
Interest-bearing net liabilities, (MEUR)	14.2	3.4	0.2	-2.1	-12.6
Net gearing, %	13.2	3.0	0.2	-1.9	-11.2
Equity ratio, %	69.6	69.7	72.4	73.1	73.4
Gross investments, (MEUR)	9.4	9.5	9.6	17.4	21.3
Gross investments, % of net sales	12.4	11.6	11.1	22.2	28.3
R&D costs, (MEUR)	20.2	22.3	19.8	22.8	25.1
R&D costs, % of net sales	27.0	27.0	22.8	29.1	33.4
Average personnel during the period, parent and subsidiaries	601	641	664	673	665
<b>STOCK-RELATED FINANCIAL RATIOS</b>					
Earnings per share from continuing operations, EUR					
Basic earnings per share	-0.153	0.007	0.093	0.061	0.214
Diluted earnings per share	-0.153	0.007	0.093	0.061	0.214
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	-0.153	0.007	0.093	0.061	0.214
Diluted earnings per share	-0.153	0.007	0.093	0.061	0.214
Equity per share, EUR	3.03	3.24	3.27	3.20	3.15
Dividend per share, EUR *)	0.03	0.05	0.04	0.03	
Dividend per earnings, %	-19.7	704.5	43.0	50.9	
P/E ratio	-31.5	560.1	56.9	94.8	30.4
Effective dividend yield, %	0.6	1.3	0.8	0.5	
Market values of shares, (EUR)					
Highest	5.20	6.08	7.89	7.67	8.03
Lowest	3.31	3.47	4.93	3.40	5.91
Average	4.22	4.71	6.18	5.74	6.70
At the end of the period	4.81	3.98	5.30	5.79	6.50
Market value of the stock, (MEUR)	170.7	141.9	189.2	206.7	232.0
Trading value of shares					
MEUR	17.0	44.0	83.2	117.9	51.5
1000 PCS	4,021	9,346	13,464	20,557	7,689
Related to the average number of shares, %	11.3	26.2	37.7	57.6	21.5
Adjusted number of the shares at the end of the period (1000 PCS)	35,486	35,702	35,702	35,693	35,693
Adjusted number of the shares average for the period (1000 PCS)	35,609	35,702	35,700	35,693	35,693
Adjusted number of the shares average for the period diluted with stock options (1000 PCS)	35,609	35,702	35,700	35,693	35,693

\*) Proposal of the Board of Directors for 2023.

# Notes to the Consolidated Financial Statements

## CALCULATION OF KEY RATIOS

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

### 33. SHAREHOLDINGS AND SHARES

#### Breakdown of Shares by Shareholding, December 31, 2023

Number of shares	Number of shareholders	Percentage of shareholders	Number of shares	Percentage of shares and votes
1 - 100	10,222	46.4	451,579	1.3
101 - 500	6,787	30.8	1,783,314	5.0
501 - 1000	2,132	9.7	1,671,292	4.7
1001 - 5000	2,153	9.8	4,833,000	13.5
5001 - 10000	365	1.7	2,659,155	7.4
10001 - 50000	303	1.4	5,934,090	16.6
50001 - 100000	33	0.2	2,192,226	6.1
100001 - 500000	25	0.1	5,620,020	15.7
500001 - 999999999999	10	0.0	10,557,588	29.6
<b>Total</b>	<b>22,030</b>	<b>100.0</b>	<b>35,702,264</b>	<b>100.0</b>
Nominee-registered	9		1,350,441	3.8

#### Breakdown of Shareholders by Shareholder Type, December 31, 2023

Shareholders by shareholder type	Number of shareholders	Percentage of shareholders	Number of shares	Percentage of shares and votes
Non-financial corporations	511	2.3	4,191,362	11.7
Financial sector and insurance corporations	22	0.1	1,969,316	5.5
General government	4	0.0	3,165,537	8.9
Non-profit institutions	28	0.1	104,936	0.3
Households	21,376	97.0	24,857,249	69.6
Foreign owners	80	0.4	63,423	0.2
Nominee-registered shares	9	0.0	1,350,441	3.8
<b>Total</b>	<b>22,030</b>	<b>100.0</b>	<b>35,702,264</b>	<b>100.0</b>

# Notes to the Consolidated Financial Statements

## Major Shareholders, December 31, 2023

	Number of shares	Percentage of shares and votes
<b>Number of shares total</b>	<b>35,702,264</b>	<b>100.0</b>
1. Veikkolainen Erkki, Chairman of the Board	1,822,112	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. Special Investment Fund Aktia Mikro Markka	700,000	2.0
7. Skandinaviska Enskilda Banken AB	698,499	2.0
8. Hildén Kai	658,000	1.8
9. Citibank Europe Plc	592,844	1.7
10. Elo Mutual Pension Insurance Company	503,000	1.4
<b>Total</b>	<b>10,557,588</b>	<b>29.6</b>
Others (incl. nominee-registered shares)	25,144,676	70.4

## The Board and CEO

Veikkolainen Erkki, Chairman of the Board	1,822,112	5.1
Kemppainen Pekka, Member of the Board	8,326	0.0
Paloranta Veli-Pekka, Member of the Board	8,562	0.0
Tiuraniemi Riitta, Member of the Board	19,292	0.1
Toljamo Petri, Member of the Board	26,176	0.1
Westermarck Johan, CEO	71,854	0.2
	<b>1,956,322</b>	<b>5.5</b>



# Income Statement, Parent

1000 EUR	Notes	2023	2022
<b>NET SALES</b>	1, 2	<b>1,316</b>	<b>790</b>
Other operating income	3	0	0
Personnel expenses	4	-1,878	-1,154
Depreciation and reduction in value	5	- 15	- 14
Other operating expenses	6	-1,150	- 872
<b>OPERATING PROFIT</b>		<b>-1,728</b>	<b>-1,250</b>
Financial income and expenses	7	4,809	1,590
<b>PROFIT (LOSS) BEFORE APPROPRIATIONS AND TAXES</b>		<b>3,081</b>	<b>340</b>
<b>Appropriations</b>	8	<b>-2,200</b>	<b>1,500</b>
<b>PROFIT (LOSS) BEFORE APPROPRIATIONS AND TAXES</b>		<b>881</b>	<b>1,840</b>
<b>Taxes</b>	9	<b>0</b>	<b>0</b>
<b>NET PROFIT FOR THE FINANCIAL YEAR</b>		<b>881</b>	<b>1,840</b>

## Balance Sheet, Parent

1000 EUR	Notes	Dec. 31, 2023	Dec. 31, 2022
<b>ASSETS</b>			
Non-current assets			
Intangible assets	10	72	77
Tangible assets	11	71	71
Investments	12	39,750	39,750
Non-current assets total		39,893	39,898
Current assets			
Receivables			
Current receivables	13	109,883	100,152
Receivables total		109,883	100,152
Financing securities	14	1	5,696
Cash and bank deposits		5,836	8,845
Current assets total		115,720	114,693
<b>TOTAL ASSETS</b>		<b>155,613</b>	<b>154,591</b>
<b>SHAREHOLDERS' EQUITY AND LIABILITIES</b>			
Shareholders' equity			
Share capital	15	12,941	12,941
Invested non-restricted equity fund		25,953	25,953
Retained earnings		89,481	90,472
Net profit/loss for the year		881	1,840
Shareholders' equity total		129,256	131,206
Provisions			
Provisions, non-current			
Provisions, current			
Liabilities			
Non-current liabilities	16		20,000
Current liabilities		26,357	3,385
Liabilities total		26,357	23,385
<b>SHAREHOLDERS' EQUITY AND LIABILITIES TOTAL</b>		<b>155,613</b>	<b>154,591</b>

# Cash Flow, Parent

1000 EUR	2023	2022
<b>CASH FLOW FROM OPERATING ACTIVITIES</b>		
Profit (loss) before taxes +/-	881	1,840
Adjustments		
Depreciation according to plan +	15	14
Effects of non-cash business activities	2,200	-1,500
Financial income and expenses +/-	-4,809	-1,590
Cash flow before change in net working capital	-1,713	-1,236
Change in net working capital		
Change in interest-free short-term receivables	-581	8
Change in interest-free short-term payables	58	169
Cash flow before financing activities	-2,235	-1,058
Interest paid -	-946	-881
Dividends received +	0	0
Interest received +	5,828	2,471
<b>Net cash from operating activities</b>	<b>2,647</b>	<b>531</b>
<b>CASH FLOW FROM INVESTING ACTIVITIES</b>		
Purchase of tangible and intangible assets -	-10	-4
<b>Net cash used in investing activities</b>	<b>-10</b>	<b>-4</b>
<b>CASH FLOW FROM FINANCIAL ACTIVITIES</b>		
Change in interest-free short-term financial receivables in Group	-10,650	-152
Change in interest-free short-term financial payables in Group	640	48
Received Group contributions	1,500	0
Dividend paid and capital repayment	-1,785	-1,428
Purchases of own shares	-1,046	-144
<b>Net cash used in financial activities</b>	<b>-11,341</b>	<b>-1,676</b>
<b>NET CHANGE IN CASH AND CASH EQUIVALENTS</b>	<b>-8,704</b>	<b>-1,149</b>
Cash and cash equivalents at beginning of the period	14,541	15,690
Cash and cash equivalents at end of the period	5,837	14,541
Change in cash and cash equivalents in the balance sheet	-8,704	-1,149

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	2023	2022
<b>1. NET SALES BY SEGMENTS</b>		
Other functions	1,316	790
<b>Total</b>	<b>1,316</b>	<b>790</b>
<b>2. NET SALES BY MARKET AREAS</b>		
Europe	1,158	701
Americas	158	89
Asia		
<b>Total</b>	<b>1,316</b>	<b>790</b>
<b>3. OTHER OPERATING INCOME</b>		
Other operating income	0	0
<b>Total</b>	<b>0</b>	<b>0</b>
<b>4. NUMBER OF PERSONNEL AND PERSONNEL EXPENSES</b>		
Average number of personnel during the period		
Other functions	8	7
<b>Total</b>	<b>8</b>	<b>7</b>
Number of personnel at the end of the year		
	9	7
Personnel expenses *		
Management salaries	539	353
Board of Directors	175	176
Other salaries and wages	898	472
<b>Total</b>	<b>1,612</b>	<b>1,001</b>
Pension expenses	242	136
Other social expenses	24	17
<b>Total</b>	<b>1,878</b>	<b>1,154</b>
* The Board of Directors' salaries include the share-based compensation.		
<b>5. DEPRECIATION AND REDUCTION IN VALUE</b>		
Intangible rights	15	14
Other capitalized long-term expenditures	0	0
Machinery and equipment	0	0
<b>Total</b>	<b>15</b>	<b>14</b>

# Notes to the Financial Statements of the Parent Company

1000 EUR	2023	2022
<b>6. OTHER OPERATING CHARGES</b>		
IT equipment and SW expenses	55	33
Premises expenses	27	17
Administrative services	585	440
Travel expenses	102	39
Voluntary staff expenses	31	22
Other business expenses	351	320
<b>Total</b>	<b>1,150</b>	<b>872</b>
Auditor's charges		
Auditing	25	23
Tax advice	0	1
Other services	1	1
<b>Total</b>	<b>26</b>	<b>25</b>
<b>7. FINANCIAL INCOME AND EXPENSES</b>		
Income from investments		
From Group companies		
From others	73	63
<b>Total</b>	<b>73</b>	<b>63</b>
Other interest and financial income		
From Group companies	5,471	2,284
From others	377	35
<b>Total</b>	<b>5,848</b>	<b>2,320</b>
Other interest and financial expenses		
To Group companies	4	3
To others	1,109	790
<b>Total</b>	<b>1,113</b>	<b>793</b>
Reduction in the value of the investment	0	0
<b>Net financial income and expenses</b>	<b>4,809</b>	<b>1,589</b>
Net financial income and expenses including exchange gains and losses	-6	-237
<b>8. APPROPRIATIONS</b>		
Received Group contributions	-2,200	1,500
<b>9. INCOME TAX</b>		
Other direct taxes	0	0
<b>Total</b>	<b>0</b>	<b>0</b>

1000 EUR	Dec. 31, 2023	Dec. 31, 2022
<b>10. INTANGIBLE ASSETS</b>		
<b>Intangible rights</b>		
Acquisition cost Jan. 1	345	341
Investments during the period	10	4
Disposals during the period		
<b>Acquisition cost at the end of the period</b>	<b>355</b>	<b>345</b>
Accumulated depreciation Jan. 1	-269	-254
Depreciation for the period	-15	-14
<b>Book value at the end of the period</b>	<b>72</b>	<b>77</b>
<b>Other capitalized long-term expenditures</b>		
Acquisition cost Jan. 1	6	6
Investments during the period		
<b>Acquisition cost at the end of the period</b>	<b>6</b>	<b>6</b>
Accumulated depreciation Jan. 1	-6	-6
Depreciation for the period		
<b>Book value at the end of the period</b>		
<b>Intangible assets total</b>		
Acquisition cost Jan. 1	352	348
Investments during the period	10	4
<b>Acquisition cost at the end of the period</b>	<b>361</b>	<b>352</b>
Accumulated depreciation Jan. 1	-275	-261
Depreciation for the period	-15	-14
<b>Book value at the end of the period</b>	<b>72</b>	<b>77</b>

# Notes to the Financial Statements of the Parent Company

1000 EUR	Dec. 31, 2023	Dec. 31, 2022
<b>11. TANGIBLE ASSETS</b>		
<b>Machinery and equipment</b>		
Acquisition cost Jan. 1	6	6
Investments during the period		
Disposals during the period		
<b>Acquisition cost at the end of the period</b>	<b>6</b>	<b>6</b>
Accumulated depreciation Jan. 1	-6	-6
Depreciation for the period	0	0
<b>Book value at the end of the period</b>	<b>0</b>	<b>0</b>
<b>Other tangible assets</b>		
Acquisition cost Jan. 1	71	71
<b>Acquisition cost Dec. 31</b>	<b>71</b>	<b>71</b>
<b>Book value at the end of the period</b>	<b>71</b>	<b>71</b>
<b>Tangible assets total</b>		
Acquisition cost Jan. 1	77	77
Investments during the period		
<b>Acquisition cost at the end of the period</b>	<b>77</b>	<b>77</b>
Accumulated depreciation Jan. 1	-6	-6
Depreciation for the period	0	0
<b>Book value at the end of the period</b>	<b>71</b>	<b>71</b>
<b>12. INVESTMENTS</b>		
<b>Investments in subsidiaries</b>		
Acquisition cost Jan. 1	39,749	39,749
<b>Book value at the end of the period</b>	<b>39,749</b>	<b>39,749</b>
<b>Investments in other shares</b>		
Acquisition cost Jan. 1	1	1
<b>Book value at the end of the period</b>	<b>1</b>	<b>1</b>
<b>Investments total</b>		
Acquisition cost Jan. 1	39,750	39,750
<b>Book value at the end of the period</b>	<b>39,750</b>	<b>39,750</b>



1000 EUR	Dec. 31, 2023	Dec. 31, 2022
<b>13. CURRENT RECEIVABLES</b>		
Accounts receivable		
From Group companies	547	0
<b>Total</b>	<b>547</b>	<b>0</b>
Other receivables		
From Group companies	109,257	98,607
From others	21	52
<b>Total</b>	<b>109,278</b>	<b>98,659</b>
Prepaid expenses and accrued income		
From Group companies	0	1,500
From others	58	60
<b>Total</b>	<b>58</b>	<b>1,560</b>
<b>Current receivables total</b>	<b>109,883</b>	<b>100,219</b>
<b>14. FINANCING SECURITIES</b>		
Cash and cash equivalents include liquid and low-risk financing securities.		
Financial assets at fair value through profit or loss	1	5,696
<b>15. SHAREHOLDERS' EQUITY</b>		
Share capital at the beginning of the period	12,941	12,941
<b>Share capital at the end of the period</b>	<b>12,941</b>	<b>12,941</b>
Invested unrestricted equity fund at the beginning of the period	25,953	25,953
Share issue		
<b>Invested unrestricted equity fund at the end of the period</b>	<b>25,953</b>	<b>25,953</b>
Retained earnings at the beginning of the period	92,312	92,044
Dividend distribution	-1,785	-1,428
Purchases of own shares	-1,046	-144
Net profit for the period	881	1,840
<b>Retained earnings at the end of the period</b>	<b>90,362</b>	<b>92,312</b>
Distributable earnings at the end of the period	116,315	118,265
<b>Shareholders' equity total</b>	<b>129,256</b>	<b>131,206</b>

# Notes to the Financial Statements of the Parent Company

1000 EUR	Dec. 31, 2023	Dec. 31, 2022
<b>16. LIABILITIES</b>		
<b>Current liabilities</b>		
Accounts payable		
To Group companies	36	0
To others	49	163
<b>Total</b>	<b>85</b>	<b>163</b>
Other short-term liabilities		
To Group companies	5,710	2,936
To others	20,138	32
<b>Total</b>	<b>25,848</b>	<b>2,968</b>
Accrued expenses and deferred income		
To others	424	321
<b>Total</b>	<b>424</b>	<b>321</b>
<b>Current liabilities total</b>	<b>26,357</b>	<b>3,452</b>

1000 EUR	Dec. 31, 2023	Dec. 31, 2022
<b>17. SECURITIES AND CONTINGENT LIABILITIES</b>		
On behalf of Group companies		
Guarantee limits	2,989	2,992
of which guarantees in use total		
Leasing liabilities		
Falling due in the next year	1,501	1,011
Falling due after one year	1,337	868
Other liabilities		
Credit Cards	1	6
Rental liabilities		
Falling due in the next year	11	9
Contractual liabilities		
Falling due in the next year	20	16
Falling due in 1–5 years		

1000 EUR	Dec. 31, 2023	Dec. 31, 2022
<b>18. NOMINAL VALUE OF CURRENCY DERIVATES</b>		
Foreign exchange forwards		
Market value	19	33
Nominal value	2,200	5,000

	Owned by Parent, %	Owned by Group, %	Book value 1000 EUR
<b>19. SHARES AND HOLDINGS</b>			
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, 2023, the distributable assets of the parent company are EUR 116,314,733.29 of which the profit of the financial year is EUR 880,995.75.

The Board of Directors proposes to the Annual General Meeting to be held on April 10, 2024, that a dividend of EUR 0.03 per share be paid based on the balance sheet to be adopted for the financial year ended December 31, 2023.

The Board of Directors furthermore proposes that the Annual General Meeting would authorize the Board of Directors to decide, at its discretion, on the payment of an extraordinary dividend of EUR 0.03 per share, by October 31, 2024. The Board of Directors expects that this discretionary extraordinary dividend will be paid, unless there is a significant deterioration in the business environment during 2024. The company will publish any possible decisions on dividend payment by the Board of Directors separately,

and simultaneously confirm the dividend record and payment dates.

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 8, 2024



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



Johan Westermarck  
CEO

## Auditor's Note

Auditor's Report has been issued today.  
In Oulu February 9, 2024

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, 2023. 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****Recognition of Revenue from long-term construction contracts**

*We refer to the Group's accounting policies and to the note 2*

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 2023 the revenue recognized from these projects was 8.4 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.

**HOW OUR AUDIT ADDRESSED THE KEY AUDIT MATTER**

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 cast 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 22 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.

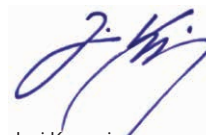
In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears 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 9, 2024

Ernst & Young Oy  
Authorized Public Accountant Firm



Jari Karppinen  
Authorized Public Accountant

# Bittium

Connectivity to be trusted.  
[www.bittium.com](http://www.bittium.com)



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