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## Bittium in 2022

## Medical Technologies

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

Bittium Annual Report 2022

## R&D Services

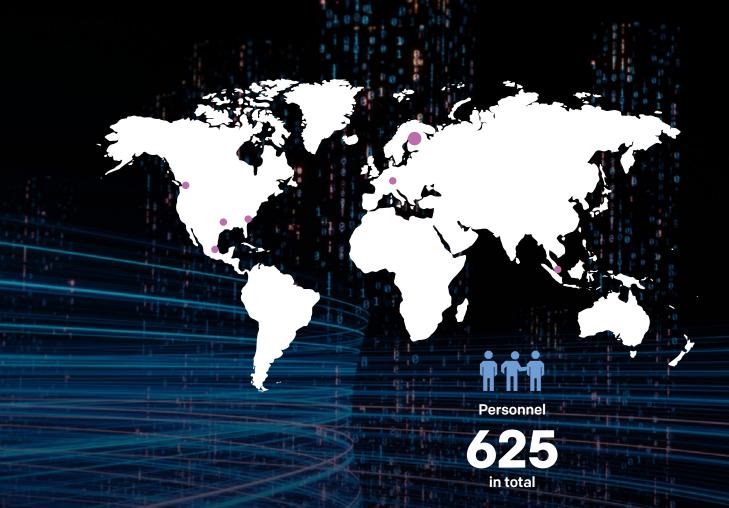
Bittium offers professional R&D engineering services and technology expertise in the areas of wireless devices, network infrastructure, and IoT solutions.

## 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.



**Net Sales** 

**82.5** 

**MEUR** 

**Products** 

57.4

MEUR

**Product-based Net Sales**Medical Technologies **22.6** MEUR

Defense & Security 34.8 MEUR

**Services** 

**25.1** 

**MEUR** 

Services-based Net Sales
Connectivity Solutions 15.2 MEUR

**Operating Profit** 

0.3

**MEUR** 

Cash and Other Liquid Assets

19.0

**MEUR** 

**Equity Ratio** 

69.7

%

**Net Gearing** 

**3.0** 

0/0

**Earnings per Share** 

0.007

**EUR** 

**Order Book** 

**28.1** 

**MEUR** 

## CEO's Review

The fourth quarter was strong as it is typical for Bittium. The operating result exceeded our 10 percent operating profit target. The net sales for the fourth quarter were EUR 27.6 million, which was 8.1 percent less than the previous year, mainly due to the decrease in product-based net sales, especially in the Medical Technologies business unit. The product-based net sales of the Defense & Security business, on the other hand, increased slightly from the previous year. Service-based net sales also decreased slightly from a year ago.

Overall, the year 2022 was challenging for Bittium. Net sales decreased from the previous year and were EUR 82.5 million. Product-based net sales decreased especially due to delivery difficulties caused by a shortage of components for Medical Technologies products. The weaker-thanplanned development of Medical Technologies net sales was also affected by the delay in the medical device approval of Bittium Respiro, a home sleep apnea measuring solution. Looking at the entire year, the net sales of Defense & Security products remained at the previous year's level. Net sales growth was slowed down by the longer-than-expected trial use phases of several Tough Mobile 2-based information security solutions.

The service-based net sales of 2022 increased slightly compared to the previous year, especially thanks to the increase in the service-based net sales of the Defense & Security business. The net sales of Connectivity Solutions R&D services, on the other hand, remained at the same level compared to the previous year.

The operating profit for the entire year 2022 was EUR 0.3 million. The weakening of the operating result was especially affected by the temporary decrease in the net sales of the Medical Technologies product business due to the lack of components and the continued investments in sales and marketing, as well as in product development, to ensure the future growth of the business.

The order backlog grew during the last quarter and was 28.1 million euros at the end of the year.

The war in Ukraine or the sanctions against Russia have no direct financial impact on Bittium's business, and Bittium does not have business in Russia, Ukraine, or Belarus. The world political situation caused by the war is reflected in the defense market when countries increase their defense budgets. New defense forces modernization projects are starting again, which has also been reflected in Bittium as a positive increase in demand for tactical communication system products and information security solutions. Last year was very active with numerous customer and partner meetings. We got to participate in several tenders, and we will continue to participate in several new tenders regarding the modernization of tactical communications of different states. In accordance with the nature of the market, the bidding stages of these new modernization projects are quite slow and can take several years.

Last year, Finland started the process of joining the military alliance NATO. Joining NATO would strengthen our competitive

position, especially in tenders from NATO countries

In the domestic defense market, we continued to supply the Defense Forces with tactical communication products and received an order for the multi-year development of software versions of tactical communication systems' waveform and radio platform software in order to maintain the best possible performance. The field testing of the software-based Tough SDR radios and their waveforms continued. We received an order from the Defense Forces for Tough SDR radios. In addition, we received a continuation order for the development of the waveform of the Tough SDR radios, which will be multi-year.

2022 was a very active year in the international defense and security markets. Product deliveries, integration, and testing of tactical communication system products continued to customers in Austria and Estonia, as well as to other international customers. During the past year, a new promising market area has emerged: international companies developing air defense and sensor systems. In addition, several pilots of Tough SDR radios started in different parts of Europe and Asia. We also continued our cooperation in the ESSOR project with Bittium Tough SDR radios with good results. The interoperability tests performed in the summer with the new ESSOR High Data Rate Waveform were successful.

We expanded the tactical communication product range and launched the new Bittium Tough VoIP Field Phone™ 2, which enables reliable communication in demand-

ing operating environments. The secure Bittium Tough Mobile™ smartphone product family was also supplemented in Junewith the new Bittium Tough Mobile™ 2 Tactical solution, which enables military mobile communication.

Interest in Bittium Tough Mobile 2 smartphones has increased in the governmental market due to the Russian war of aggression and numerous data security attacks. We have applied for NATO security approval for our Tough Mobile 2 solution and expect to receive it during 2023. We believe that the approval will increase sales of the solution

The importance of remote care and remote monitoring is further emphasized by the insufficiency of medical care resources and cost pressures, which positively affect the demand for Bittium's medical technology products and services. The worldwide component shortage significantly slowed down the manufacturing and delivery of the devices. Due to strict delivery time requirements, we also could not accept all orders.

Bittium has medical device approval processes ongoing in many countries. The new European product safety regulation for medical devices, MDR (Medical Device Regulation, EU 2017/745), has caused a backlog of quality system audits and device approvals and thus delay in application turnaround times. In December, we received MDR approval for Bittium Respiro, a home sleep apnea test and analysis solution. FDA (Food and Drug Administration) medical device approval for Respiro in the North American market is expected during the first half of 2023.

We made good progress in increasing the European sales of Bittium Faros™ ECG measuring devices. However, a significant part of the product deliveries of the past year was still made to Preventice Solutions (a subsidiary of Boston Scientific Group), a customer offering remote monitoring services in the US ECG market. We expanded the Faros product family with a new ECG measuring device that measures ECG with one battery charge continuously for at least 14 days. The new version makes it easier to diagnose arrhythmias thanks to the extended measurement time. The device also enables earlier discharge of patients and better conditions to quickly detect and react to possible arrhythmias.

In the neurophysiology market, the piloting of Bittium BrainStatus™ EEG measuring devices continued and new ones started. Some Finnish and European university hospitals are testing the use of BrainStatus in their intensive care units. The market for BrainStatus is just opening up as the recommendations for intensive care are changing in a more demanding direction regarding EEG measurement.

Last year, we established a separate Clinical Advisory Board to support the business of our healthcare technology products. The Clinical Advisory Board brings us medical expertise and an international forum for the continuous development of our products. Based on this expertise, feedback, and clinical research, we have the opportunity to develop even more competitive solutions.

During the past year, the net sales of R&D services remained at the same level com-

pared to the previous year. The market has recovered from the coronavirus pandemic, and we have been able to do active sales and marketing work. The demand for R&D services focused on the Industrial IoT, Telecom, and MedTech technology markets, where companies seek wireless connectivity for their products. Several customer projects were successfully completed, and new ones were started. The goal of the Connectivity Solutions business is to focus on growing the international customer base.

The availability of labor is still a challenge. In particular, there are too few software experts compared to the demand, and the competition for employees has increased the mobility of the workforce. During the past year, we have invested in building an employer image, which has contributed to the recruitment of new employees.

I would like to thank our customers, employees, shareholders, and partners for the past year. We have strengthened and focused our business units to become even more independent, with the aim of starting to report independent business units from 2024 at the latest. We believe this will bring more transparency and added value to both owners and other stakeholders.

Hannu Huttunen

MM

CEO

## 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, the United States, Mexico, and Singapore. Bittium headquarters is located in Oulu, and the company's other Finnish offices are in Espoo, Kajaani, Kuopio, and Tampere.

At the end of 2022, Bittium had 625 employees, of which the majority were R&D engi-

neers. In 2022, the Company did not undergo any significant changes in relation to its size, structure, operating areas, ownership, distribution of shares, income formation, or the maintenance of operations.

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), EICC (Electronic Industry Citizenship Coalition), 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 Purpose

Bittium's purpose is to adapt our deep knowledge to deliver superior technology innovations to enhance connectivity, bring safety and improve health in the society.

### Bittium's Vision

Bittium's vision is to become a global enabler of secure and reliable connectivity for people and things.



## **Business Model**

## Megatrends and Their Phenomenons

Connectivity as an enabler of digitalization, Internet of Things (IoT) and digitalization, aging population, growth of remote diagnostics, information security



## **Customer Groups**

Companies of different sizes, OEMs, system integrators, defense 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 be the world's leading provider of innovative products and services for enhanced wireless communications, cybersecurity, tactical communications and biosignal measurement.



### **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 adapt our deep knowledge to deliver superior technology innovations to enhance connectivity, bring safety and improve health in society.

## Strategy

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

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

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

 The Medical Technologies business unit consists of three business areas, which are measuring and analyzing the electrical activity of the heart (ECG) (Cardiac), measuring and analyzing the electrical activity of the brain (EEG) (Neuro), and Home Sleep Apnea Testing (Sleep). In the coming years, alongside the product business, the company will invest in diversifying the software business and increasing the turnover it generates. In the Medical Technologies business, the focus will be on increasing the international customer base and market shares.

- · In the Defense & Security business unit, the company offers secure communication solutions for the authority, defense, and other professional user markets. The business consists of tactical communication solutions targeted to the defense market and high-security communication solutions targeted to the authorities. Over the past years, the company has made significant investments to expand its product portfolio. The products and systems are now internationally at a very competitive level in terms of coverage and technical features. In the next phase, the company will utilize the previously made product development investments and invest strongly in international sales and marketing. The company's goal is to significantly grow the international product business and achieve an internationally significant position as a provider of tactical communication and high-security communication solutions.
- In the Connectivity Solutions business unit, the company offers its customers product development services and wireless connectivity solutions for the development of new innovative products in a secure and developing wireless environment. In the coming years, the company will focus on growing its international customer base in the Telecom, Industrial IoT, and MedTech market segments.

Bittium has made significant product development investments in its own products and solutions between 2018 and 2022. These product development investments

have been completed, and the company is moving from product development-focused product portfolio expansion to international business expansion and growth. Bittium is aiming for international growth in the product business in both tactical communication solutions and medical technology products and services in the coming years.

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

## Long-term Financial Targets

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

At the end of the year 2022, the Board of Directors of Bittium Corporation specified the Company's long-term financial targets due to the recovery of the market and the expected favorable business development. Bittium aims for an average annual net sales growth of more than 10 percent and an operating profit level of 10 percent and estimates that it will achieve these goals in 2024.





## Defense & Security Business Unit

## Tactical and Secure Communication Systems

In the Defense & Security product and service area, Bittium offers globally leading products and services 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 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 hardware solutions, and 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 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 new SafeMove Streams feature enables optimized, durable and secure connectivity, even when the network connections in use are unreliable and sensitive to interference.

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 new 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 example, for weapon systems and unmanned vehicle

platforms due to its mobility, low latency, and

high data transfer capacity features.

Bittium Tactical 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 as well as Bittium Tough VoIP Service and Bittium Tough VoIP Softphone software products.

Bittium Tough Comnode™ 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 battle-fields, 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 designed specifically for mobile troops. It 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 software product designed especially for tactical use. It can be used for VoIP calls, instant messaging, conference calls, and screen sharing in the Bittium Tough VoIP Service network either with a PC or smartphone

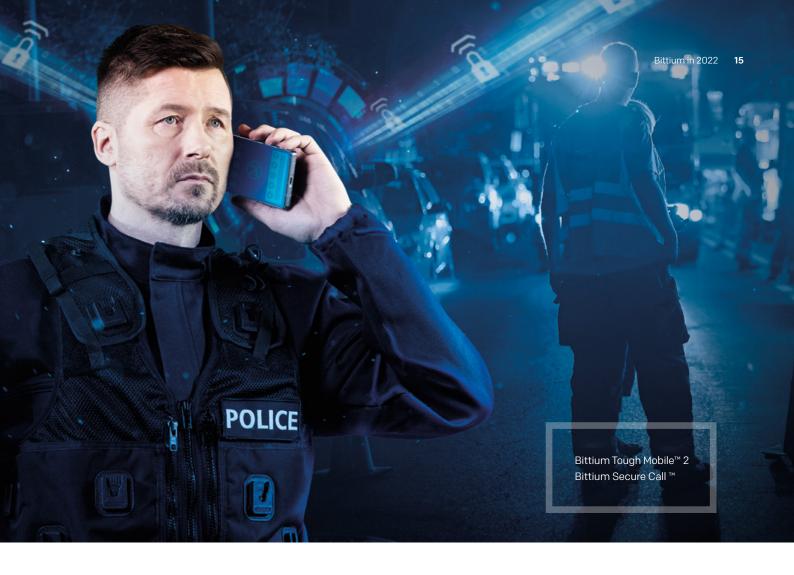
Bittium Tactical Power Pack™ is specifically designed for tactical data transfer as an accessory to the Bittium Tough SDR Handheld radio and the Bittium Tough Comnode device, for example, but can also be easily used with standard tablets and smartphones via USB. The Tactical Power Pack enables uninterrupted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

Bittium Tactical LTE Access Point™ is a stand-alone LTE access solution that enables the creation of multiple parallel wireless LTE areas and seamless connection to

an IP network. The Tactical LTE Access Point is fully compatible with the Bittium TAC WIN backbone network. With the solution, different troops can benefit from cost-effective and fast multimedia data transfer and VoIP services with both commercial smartphones and special terminals intended for government use.

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.



## Year 2022

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

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

Finland started the process of joining the military alliance NATO. A possible accession to NATO will strengthen Bittium's market position, especially in tenders from NATO countries. Bittium's tactical communication products have very high-quality tech-

nical solutions for use in NATO countries, and NATO countries have been potential customers of Bittium even without Finland joining NATO. In addition, joining would enable Bittium to implement NATO waveforms and encryption solutions, if necessary, and would offer the opportunity to participate in the research programs of NATO countries.

In the domestic defense market, field testing of Bittium Tough SDR™ radios and their waveforms, as well as preparations for the large-scale deployment of the radios, continued throughout the year 2022. Bittium received a continuation order for the development of the radios' waveform. The project will be multi-year. In November, the Finnish Defence Forces ordered Bittium Tough SDR Handheld and Vehicular radios for around 4.3 million euros.

Deliveries of other tactical communication products to the Finnish Defense Forces were also continued. Bittium received orders in accordance with framework agreements for both Bittium Tactical Wireless IP Network™

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

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

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

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

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

The demand for Bittium Tough Mobile 2 smartphones and related data security software in the official market has increased with the Russian war of aggression and numerous data security attacks. Deliveries of phones and their various variants to the domestic and international markets continued. At the end of the year, Bittium de-

livered Tough Mobile 2 smartphones to the Swedish company Tutus. The delivery was a continuation of the cooperation between the companies, which has developed a mobile solution with a high level of information security, which combines Bittium's secure Bittium Tough Mobile 2 smartphone platform and the Tutus encryption solution approved by the Swedish government. Tutus has delivered this mobile solution, specially designed as a tool for critical communication and a mobile environment, to a major Swedish authority.

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

## 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 other Bittium IP-based (Internet Protocol) tactical communication solutions that fulfill the needs of data transfer of moving troops and individual soldiers.

Russia's war of aggression against Ukraine has also increased the defense budgets of various countries and has had a favorable effect on demand in the defense market. In the first phase, the increased defense appropriations have been allocated mainly to consumables. In the future, the increased budgets will also be aimed at the modernization and development projects of the defense forces of different countries, which may have a positive effect on the demand for Bittium's tactical communication solutions.

Finland's possible NATO membership will have a positive effect on the demand for Bittium's defense and official products.

Bittium continues its efforts to export tactical data transfer products to international markets and aims to get new international customers during 2023. The development of sales is moderate due to the long sales cycles of the defense industry.

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

The global component shortage affects the availability of various components used in products, which affects the company's ability to deliver products to its customers on the agreed schedule. The component shortage is expected to ease in 2023.



## Connectivity Solutions Business Unit

**R&D Services** 

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. Bittium also conducts R&D in the technology areas of Artificial Intelligence (AI) and Cloud Solutions.

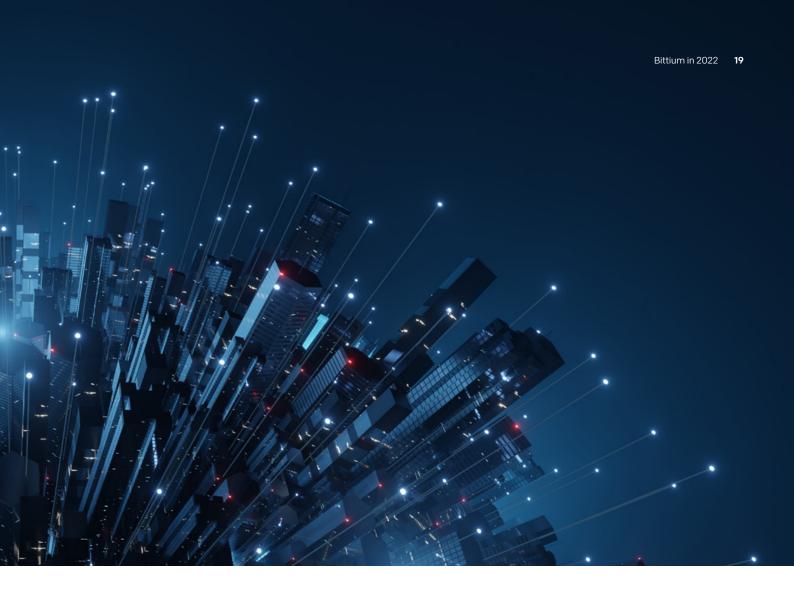
## Year 2022

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

During the past year, Bittium introduced a new Cellular IoT solution to the market. It offers IoT devices direct connectivity to cloud services over mobile networks. The solution

can be used to update the local connectivity of existing IoT devices to 4G/5G connectivity or to integrate 4G/5G connectivity into new IoT devices being developed. The solution is based on software modules, the reuse of which improves the competitiveness of Bittium's design services, enabling the implementation of connectivity projects for the customer faster and more cost-effectively.

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



## Market Outlook

## Telecommunication and Digitalization

In mobile telecommunications, the implementation of 5G is accelerating. Investments in developing new features continue, and the importance of software development in the 5G network development expands. This creates demand for Bittium's R&D services. There is a wide range of frequencies allocated for the 5G technology, thus creating the need to develop multiple products to cover the market and creating demand for R&D services for the development of product variants. Different needs for satellite communication solutions increase the demand for Bittium's product development know-how with the addition of new players to the traditional supplier network. The demand for Bittium's R&D services is also increased by the need to develop new devices utilizing 5G technology.

As digitalization evolves, secure IoT (Internet of Things) has become a significant development area in almost every industry. The increasing need for companies to digitalize their operations, collect data wirelessly, and transfer it to the internet and cloud services generate a need for Bittium's services and customized solutions. To this end, the market needs secure devices, for both demanding industrial and leisure applications, which collect information from the sensors used by the device and create a reliable wireless connection to the Internet and cloud services.

The deployment of 5G technology is expanding and the number of digitalized devices increases continuously. The devices will also feature new and more advanced features that will create demand for design services. Therefore, the integration of different systems and technologies plays an important role in enabling complete digitalization services. There are several learning

systems and devices under development that use different kinds of artificial intelligence (AI) technologies to ease and speed up the processing of large data amounts.

Technological development and new innovations enable the development of new devices and applications for monitoring health and well-being, which increases the demand for Bittium's product development service expertise. Bittium's experience in medical devices, sports applications, and wearable devices, combined with wireless connectivity expertise, enables competitiveness also in providing design services for health, well-being, and sports equipment

Labor competition for both equipment design and software experts is fierce, and it is expected to continue in the market in 2023 as well.

## Medical Technologies Business Unit

## Products and Services for Biosignal Measuring

In the Medical Technologies product and service area, Bittium offers its customers healthcare technology products and services in biosignal measuring in the areas of cardiology, neurology, rehabilitation, occupational health, and sports medicine. Combining healthcare 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 healthcare 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 (released in January 2021) – Bittium OmegaSnap one-channel 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 – Bittium MiniSnap Sensitive one-channel electrode is the most suitable electrode for 24h ECG measurements on small adults and children.

### Bittium OmegaSnap™ 2-CH ECG Electrode

- Bittium OmegaSnap two-channel electrode 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

- Bittium OmegaSnap three-channel electrode 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 EKG 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.

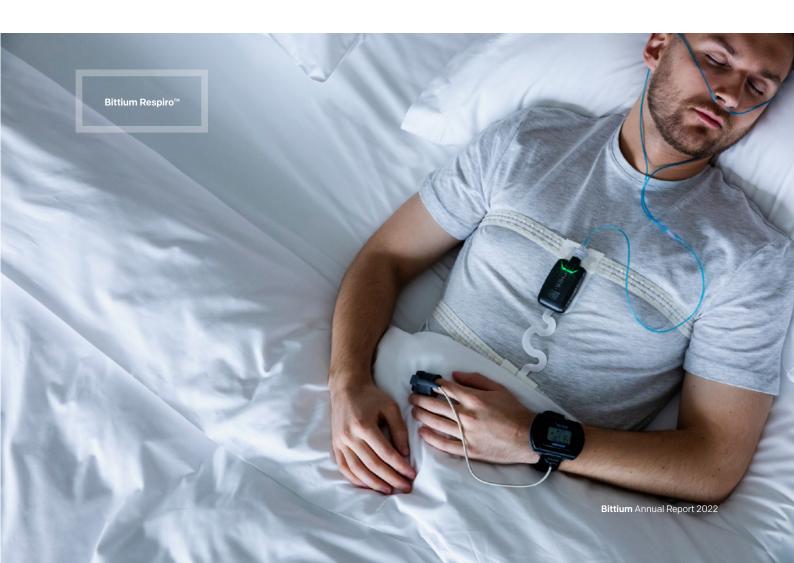
Bittium BrainStatus™ is a wireless compact EEG amplifier, which is used together with a disposable, easy and quick-to-wear Bittium BrainStatus electrode headband, for example, to diagnose epileptic seizures and brain stroke. Bittium BrainStatus enables quick measurement in field conditions as well as 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 sleep apnea screening device and analysis service 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<sup>™</sup> 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 2022

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

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

approvals, and thus a delay in application turnaround times.

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

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

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

The demand for Bittium Faros™ ECG measuring devices in the European market increased during the past year. A significant part of the product deliveries of the past year was still made to Preventice Solutions (a subsidiary of Boston Scientific Group), a customer offering remote monitoring ser-

vices in the US ECG market. At the beginning of the year, Bittium and Preventice signed an agreement according to which Bittium will continue the supply contract for BodyGuardian® MINI devices that monitor cardiac arrhythmias to Preventice. In addition, the cooperation in the development of new ECG technology tailored to the use of Preventice Solutions continues.

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

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

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

## 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 healthcare processes and lower costs.

A prerequisite for early hospital discharge is the enabling of accurate and precise follow-up and measurement opportunities in home conditions, which would be enabled through remote monitoring. Remote monitoring and remote diagnostics also enable specialists' diagnoses regardless of time and place. Also, evolving artificial intelligence-based algorithms become more common in supporting physicians in making diagnoses. Remote monitoring and remote diagnostics make it possible and faster to obtain more accurate diagnoses, which, in turn, speeds up the start of the right kind of treatment. The market change will enable several new providers to join the overall care service chain without compromising the quality of specialist services.

For remote monitoring and remote diagnostics, Bittium provides its Bittium Faros™ product family for remote heart monitoring, Bittium BrainStatus™ for measuring the electrical activity of the brain, home sleep apnea testing solution Bittium Respiro™,

and different kinds of diagnostics software offered by Bittium.

During the coronavirus pandemic, nonurgent patients seeking treatment and examinations decreased. Several hospitals, treatment facilities, and service providers in the healthcare sector switched to more extensive use of remote diagnostics solutions. The pandemic will accelerate the introduction of digital remote services in hospitals and care facilities, creating a positive development in the demand for remote monitoring products and services.

The global component shortage affects the availability of various components used in the products, which affects the company's ability to deliver products to its customers on the agreed schedule. The component shortage is expected to ease by the end of 2023

## 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. The Company does not have its own shares in its possession.

## Share Price and Share Trading in 2022

The closing price of Bittium Corporation's share was EUR 3.98 at the end of 2022; the share reached a high of EUR 6.08 and a low of EUR 3.47. During the year, a total of 9.3 million shares with the value of EUR 44.0 million changed hands on the Nasdaq Helsinki. This is 26.2 percent of the share capital. Bittium Corporation's market capitalization on December 31, 2022, was EUR 141.9 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 2021

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

## 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, 2022, the parent company's distributable funds amounted to EUR 118,265,062.42, of which EUR 1 839,891.91 is profit for the last financial year. The Board of Directors proposes that the Annual General Meeting to be held on April 12, 2023, resolve to pay EUR 0.05 per share as a dividend based on the balance sheet to be adopted for the financial period January 1, 2022 - December 31, 2022. The dividend will be paid to

the shareholders who are registered in the company's register of shareholders as maintained by Euroclear Finland Ltd on the dividend record date, April 14, 2023. The Board of Directors proposes that the dividend be paid on April 21, 2023.

## **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 OyBITTIReutersBITTI.HEBloombergBITTIFH

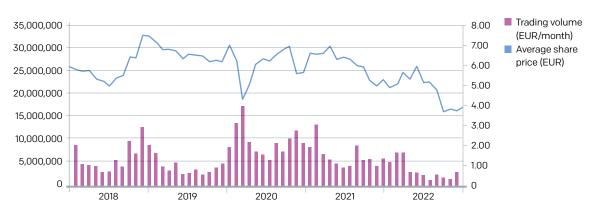
## Shareholders

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

## Shareholding of the Board of Directors and the CEO

At the end of 2022, the shareholding of the Board of Directors, CEO and the companies controlled by them was 1,891,226 shares, corresponding to 5.3 percent of all shares.

## Trading Volume and Average Share Price 2018–2022



## Share Price Development in Nasdaq Helsinki 2018–2022



## 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 <a href="https://www.bittium.com/investors">www.bittium.com/investors</a>. An emailbased subscription service for press releases and publications can be found on the Company's website as well.

## Financial Reports in 2023

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 re-

views 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.

## In 2023 the Financial Reports are published as follows:

- Financial Statement Bulletin 2022: February 10, 2023, at 8.00 am (CET+1)
- Half Year Financial Report January– June 2023: August 4, 2023, at 8.00 am (CEST+1)

## In 2023 the Business Reviews are published as follows:

- Business Review January–March 2023: April 27, 2023, at 8.00 am (CET+1)
- Business Review January–September 2023: October 20, 2023, at 8.00 am (CET+1)

## Silent Period

Bittium Corporation observes a three week silent period prior to announcing its financial reports. In 2023, the silent periods are as follows:

- January 20-February 10, 2023
- April 6-April 27, 2023
- July 14-August 4, 2023
- September 29-October 20, 2023

## Bittium Corporation's Annual General Meeting 2023

Notice is given to the shareholders of Bittium Corporation to the Annual General Meeting to be held on Wednesday 12 April 2023 at 1:00 pm (CEST+1) at the address University of Oulu, Saalastinsali, Pentti Kaiteran katu 1, 90570 Oulu, Finland. The reception of persons who have registered for the meeting and the distribution of voting tickets will commence at 12:30 pm (CEST+1).

Shareholders may also exercise their right to vote by voting in advance. Instructions for advance voting are presented below.

## 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, 29 March 2023, 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 3 March 2023 at 10:00 am (CET +1). 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 4 April 2023 at 4:00 pm (CEST +1). 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, beginning from 10:00 am (CET+1). on 3 March 2023;

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** at +358 40 344 3322 or +358 40 344 5425 on weekdays between 9:00 am (CET+1) and 3:00 pm (CET+1); or

## c) by e-mail to yhtiokokous@bittium.com.

In connection with the registration, a share-holder 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 29 March 2023. The right to participate requires, in addition, that the shareholder has been temporarily registered in the shareholders' register maintained by Euroclear Finland Ltd on the basis of these shares no later than 5 April 2023 by 10:00 am (CEST+1). 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 who 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.

## 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 <a href="mailto:yhtiokokous@bittium.com">yhtiokokous@bittium.com</a> 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 using the authorization item "Representation at the General Meeting". The proxy representative must identify themself 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

## 4. Advance voting

Shareholders who have a Finnish bookentry account or equity savings account may vote in advance between 3 March 2023 10:00 am (CET+1) and 4 April 2023 4:00 pm (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 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

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.eu, 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 on 3 March 2023 at 10:00 am (CET+1).

In connection with the delivery of 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 Annual 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 Annual General Meeting.

Instructions on electronic advance voting are also available on the company's website at <a href="https://www.bittium.com/agm">www.bittium.com/agm</a> from 10:00 am (CET+1) on 3 March 2023 at the latest.

### 5. Other information

The language of the Annual General Meeting is Finnish. Pursuant to Chapter 5, Section 25 of the Finnish Companies Act, a share-holder 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 Annual General Meeting.

On the date of this notice, Bittium Corporation has a total of 35,702,264 shares and votes

The information concerning the Annual General Meeting required under the Finnish Companies Act and the Securities Markets Act is available on the company's website at <a href="https://www.bittium.com/agm">www.bittium.com/agm</a>.

In addition, an event will be organized for the shareholders after the Annual General Meeting, where the shareholders present at the event will have the opportunity to get to know the new CEO and ask him questions. In addition to the new CEO, the Chairman of the Board will be present at the event. However, shareholders are kindly requested to note that the questions asked at the event organized after the Annual General Meeting are not considered to constitute an exercise of the right to ask questions at the general meeting under Chapter 5, Article 25 of the Finnish Companies Act.

## 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.

Bittium Corporation's Remuneration Report and Annual Report, which includes

the Company's Financial Statements, the Report by 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 20 March 2023. The proposals for decisions and the other above-mentioned 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 26 April 2023.



# Corporate Governance Statement Reporting Period Jan. 1–Dec. 31, 2022

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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.

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, the Board of Directors, the 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.

## The Board of Directors

The Board of Directors is responsible for the Company's governance and proper organization of operations. 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 Annual General Meeting shall elect the members of the Board of Directors for a term that expires at the end of the following Annual General Meeting. The number of terms for the mem-

bers 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 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 16, 2022, decided that the Board of Directors shall comprise five (5) members. Mr. Erkki Veikkolainen, Ms. Riitta Tiuraniemi, Mr. Veli-Pekka Paloranta, Mr. Petri Toljamo, and Mr. Pekka Kemppainen were re-elected as members of the Board of Directors for a term of office expiring at the end of the next Annual General Meeting. At its assembly meeting held on April 6, 2022, the Board of Directors elected Mr. Erkki Veikkolainen as the Chairman of the Board of Directors. Further, the Board has resolved to keep the Audit Committee. Ms. Riitta Tiuraniemi (Chairman of the committee), Mr. Petri Toljamo, and Mr. Veli-Pekka Paloranta were elected as members of the Audit Committee.

## Description of Activities

The Board of Directors has defined a working order and evaluates its performance annually. The Board of Directors shall implement the decisions of the General Meeting. The Board of Directors supervises the operations and management. The Board of Directors are supervised to the supervise of the

rectors 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, 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 corporate structure changes, ensuring growth and profitability, and the change of CEO.

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.

In 2022 the Board convened 13 times.

The Board members attended the meetings as follows:

January 1–December 31, 2022	Board	Audit committee
Erkki Veikkolainen	13/13	
Veli-Pekka Paloranta	12/13	6/6
Riitta Tiuraniemi	12/13	6/6
Pekka Kemppainen	13/13	
Petri Toljamo	13/13	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 the 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 require-

ments 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 in different business operations, varying stages of business development, and leadership as well as diverse personal characteristics. Experience in 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 on 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 of finding and assessing member candidates, and representatives of both genders are looked for to the process. The status of diversity and progress of the goal mentioned above is 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 to 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.

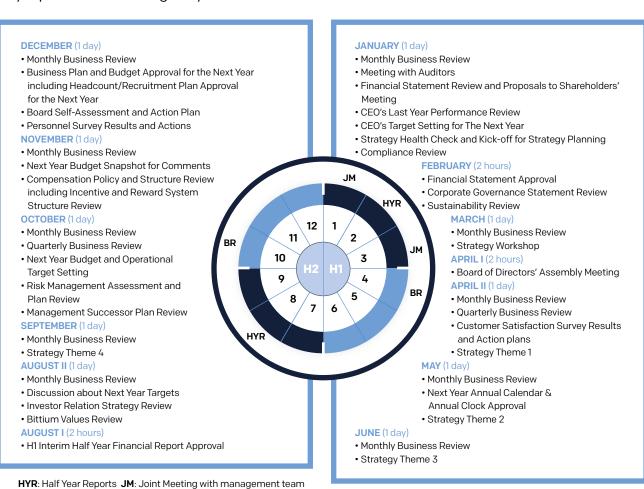
During the financial period of January 1, 2022–December 31, 2022, the Board of Directors has comprised five members. Four of the members have been males and

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 2022

## Key topics covered during the year

**BR:** Business Review



## 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 Oy, Member of the Board 2015–, Chairman of the Board 2006–2015.
- Maustaja Oy, 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, 2022:

Holds 1,817,665 Bittium Corporation shares.

Independent as regards both the Company and its significant shareholders.



## Pekka Kemppainen

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, 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, 2022:

Holds 5,785 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, 2022

Holds 6,021 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:

- Celltrum Ltd, Member of the Board 2020–2022.
- 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, 2022:

Holds 16,751 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.
- 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—.

## 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, Vice President, Device and Network Solutions Business Area. 2010.
- Elektrobit Wireless Communications,
   Vice President, Mobile Device Solutions
   Business Area, 2008–2009.
- Elektrobit Wireless Communications, Cellular Terminal Solutions Business Area, Director, 2007–2008.
- Elektrobit Wireless Communications, Platform R&D and Head of Terminal Programs, Director, 2005–2006.
- Elektrobit GmbH, Business Development, Director, 2004–2005.
- Elektrobit Oy, various product development, project management and business positions, 1996–2004.

## Holdings Dec. 31, 2022:

Holds 23,635 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 addressed matters 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

## **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 6, 2022 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 of the 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 in the committee meetings are CEO, CFO, and CLO who acts as the Committee's secretary and optionally external auditors. Further, the Committee members may meet the external auditors without the operative management being present in such meetings. In 2022, the Audit Committee convened 6 times to ordinary meetings. The Committee has evaluated, prepared, and reviewed, inter alia, the following subject matters during the financial period of January 1, 2022–December 31, 2022:

- · Financial Statements of 2021;
- Business Reviews and Half Year Financial Reports of 2022;
- · Annual audit plan for 2022;
- Observations based on auditing during the financial period;
- Starting to prepare the appointment of the Company's auditor;
- · Observation by the internal control;
- Cash flow monitoring and evaluation of the 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 2023 the Committee's focus areas

- Near future changes in Sustainability Reporting; and
- Cashflow Forecasting Process.

## 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.

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 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 3 months at the moment.

Bittium Annual Report 2022

#### Hannu Huttunen

Chief Executive Officer, 2015–. b. 1966, M.Sc. (Econ.)

#### Positions of trust:

- Oulu University of Applied Sciences, Member of the Board, 2021–.
- Advisory Board of Oulu University 2019–.
- Technology Industries of Finland, Member of the Board 2017–.

#### Previous work history:

- Elektrobit Technologies Ltd., President, Wireless Business Segment 2010–2015.
- Tekniseri Oy, Member of the Board 2012–2016.
- EXFO Inc., Vice President, Wireless Division (previously NetHawk Oyj) 2010.
- NetHawk Oyj, CEO 2003–2010, NetHawk Oy, Executive Vice President 2002–2003.
- Nokia Mobile Phones Oy, Vice President, IP Convergence 2002, Vice President Special Products Business 1998–2002, NMT450 Business unit leader 1995–1998.

#### Holdings Dec. 31, 2022:

Holds 21,369 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, Vice President, Communications and Marketing, Directors responsible for product and service areas, and 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, and risk management.



#### Jari-Pekka Innanen

Vice President, Engineering, 2015–. b. 1968, M.Sc. (ME)

#### Previous work history:

- Elektrobit Wireless Communications Ltd., Vice President, Engineering, Wireless Business Segment, 2011–2015.
- Elektrobit, Senior Manager, WS Global Resourcing, 2007–2010.
- Elektrobit, Manager, Head of Global HW, 2006–2007.
- Elektrobit, Manager, Mobile Terminal Solutions, Head of HW Competence areas, 2006.
- Elektrobit, Manager, Mechanical Competence Center, 2003–2005.
- Elektrobit, Project Manager, 1999–2003.
- Elektrobit, Mechanical Designer, 1998–1999.
- Outokumpu Stainless Steel, Supervisor Cold Rolling Mills, 1994–1997.

#### Holdings Dec. 31, 2022:

Holds 7,320 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, 2022:

Holds 2,420 Bittium Corporation shares.

#### **Tommi Kangas**

Senior Vice President, Connectivity Solutions, 2019–. b. 1971, Master of Engineering, Machine Automation

#### Previous work history:

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

#### Holdings Dec. 31, 2022:

Holds 2,741 Bittium Corporation shares.

#### Pekka Kunnari

Chief Financial Officer, 2015–. b. 1967, M.Sc. (Econ.), LL.M.

#### Positions of trust:

• Partnera Corporation, Member of the Board 2019–2020, Chairman of the Board 2020–.

#### Previous work history:

- Elektrobit Technologies Ltd., Vice President, Finance, 2011–2015.
- Elektrobit Corporation, Director, Finance, 2005–2011.
- Elektrobit Inc, Group Controller, 2004–2005.
- Elektrobit Group Corporation, Group Controller, 2003–2004.
- Elektrobit Ltd., Business Controller, 2001–2003.
- RPC Rapid Prototyping Center Oy, Finance Manager, 2000–2001.
- Tilintarkastajien Ltd. Ernst & Young, Auditor, 1998–2000.
- Tuottotieto Ltd., Business Consultant, 1994–1998.

#### Holdings Dec. 31, 2022:

Holds 4,320 Bittium Corporation shares.







#### Karoliina Malmi

Vice President, Communications and Marketing, 2015–. b. 1977, M.A. International Business Communications

#### Previous work history:

- 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, 2022:

 $Holds\ 2,\!920\ Bittium\ Corporation\ shares.$ 

#### Antti Näykki

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

#### Previous work history:

- Bittium Oyj, Director, Medical Product Management, 2020–2022.
- Bittium Oyj, 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, 2022:

Does not hold any shares in Bittium Corporation.

#### Jari Sankala

Senior Vice President, Defense & Security, 2016–. b. 1966, M.Sc. (Electrical Engineering, Digital Communications)

#### Previous work history:

- Bittium Corporation, Senior Vice President, Sales, 2015–2016.
- Elektrobit Wireless Communications Ltd, Senior Vice President, Sales & Marketing, Wireless Business Segment, 2014–2015.
- Elektrobit Wireless Communications Ltd, Executive Vice President, Defence and Security, 2011–2014.
- NetHawk Group, Executive Vice President of Sales & Marketing, 2005–2011.
- NetHawk Germany, Managing Director, 2001–2005.
- Siemens AG, Sales Director Northern Europe, Mobile Networks, Germany, 1996–2001.

#### Holdings Dec. 31, 2022:

Holds 30,141 Bittium Corporation shares.

## 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 2022 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. Ernst & Young Oy has notified that Mr. Jari Karppinen, APA, will act as the 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 2022 amounted to EUR 102,000 (EUR 84,000 in 2021). Of the aggregate fees, EUR 91,000 was attributable to auditing (EUR 74,000 in 2021), EUR 7,000 to tax advice (EUR 8,000 in 2021), and EUR 4,000 to other services (EUR 2,000 in 2021).

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

#### Risk Management

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

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

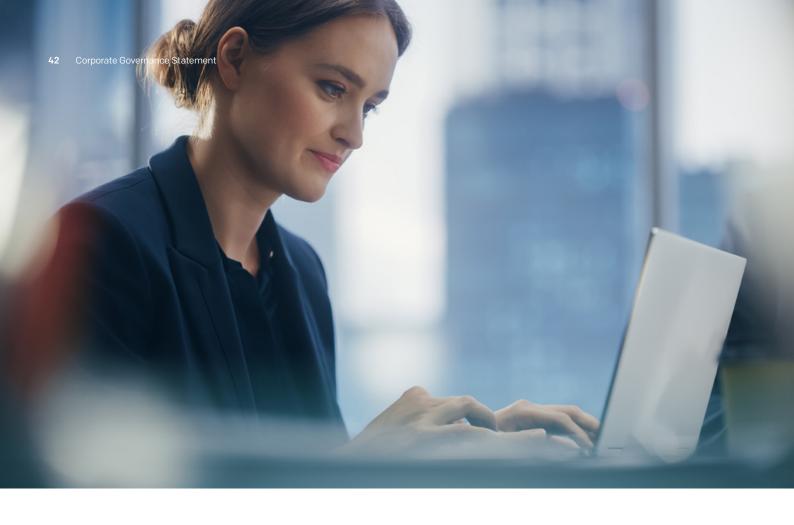
In connection with the strategy process and annual planning the CEO reviews business risks which could endanger the achievement of strategic or financial targets. Risk assessment reports are produced to support the strategy process. Strategic and operative risks are monitored through monthly reporting by businesses in the Board of the Company. Businesses 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.

#### 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:

- operations are effective, efficient, and aligned with strategy;
- 2. financial reporting and management information is reliable, complete and timely made; and
- the Company complies 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 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.

# Risks and Controls in Core Business Processes

Risk management procedures 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 business 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 the 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 over 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, prepara-

tion of quarterly financial reports and consolidated 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 are organized through various programs or purchased as an outsourced service. Purchase invoices are circulated through an 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 sustainability, are adhered to. The management and businesses are responsible for following up on 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. The CLO of the Company coor-

dinates 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 regularly 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 and 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 of 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 risk management process of the Company and its continuous development, allocation of resources to the work, review of risk management policies as well as defining the principles of operation and the overall process. The CEO reports to the Board on risk management as part of the monthly reporting. The CEO and the Management Group, which operates under the CEO, are responsible for the management of risks endangering the fulfillment of objectives set for the Company.

#### **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 is responsible for implementing risk management practices in the planning cycle and daily operations and ensuring adherence of:

- laws;
- regulations;
- · internal policies; and
- ethical values

in their designated responsibility areas.

#### The CFO:

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

The 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.

#### **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 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 with its internal insider guidelines. The insider and trading guidelines approved by the Company include regulations on insiders, publication and the postponement of publication of inside information, prohibited use of inside information, insider registers, the 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

the trading of the Company's financial instruments and thereby increase trust in 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 reviews and half year report as well as the 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 the 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 transacAccording 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. These kinds 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 2022

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**Employee** Survey

Response Rate

50.0



Customer **Satisfaction Survey NPS** 

55.6



**Customer Project Satisfaction Survey** NPS

Competence Development



Days of training

days / employee / year



**Waste Recycling Ratio** 



**Electricity** Consumption

from last year



#### **Share of Solar Power**

As high as 5% of the energy requirements of the Oulu office on a monthly basis



**707** tCO<sub>2</sub>e

**Total Carbon Footprint** 1,119 kg CO<sub>2</sub>e / person / year



# The CEO's Statement on Sustainability

The past year was the first year of Bittium's sustainability program for 2022–2025. In accordance with the updated sustainability program, our sustainability work focuses on the three key themes: Bittium employees, customers and information security, and the environment. Ethical principles and sustainable business practices create the foundation for trust, which we maintain by putting our values into action.

Sustainability is part of Bittium's everyday operations, and it is based on our strategy and values. In our operations, we take into account the environmental impacts and effects on people and good governance. We continuously strive to improve our operations and create through our actions added value that has a positive effect on society that we are part of.

Our customers and other stakeholders must be able to trust us, our product quality and us continuously developing our operations to increase sustainability – ensuring this is vitally important to us. We also want to strengthen sustainable business practices throughout our value chain. We take active measures in order to have our partners and suppliers commit to Bittium's Code of Conduct through agreements.

In a world where everything is connected and the future seems more uncertain than ever, we need solutions that create security. Bittium is there for its customers. Our mission is to enable secure operations for our customers in both the defense industry and the health care sector. We continuously strengthen our competence in detecting information security threats and participate actively, for example, in information security development projects in the EU.

Competition over the best talents in the industry is fierce. Therefore, we take care of the well-being and competence of our employees, but we also do our share to introduce the technology industry to young people – the future employees. We consider it important to promote diversity, inclusion, equality and equal treatment in our work community. Thus, we have a strong work community where people enjoy spending time together even outside the working hours in various hobby clubs, which we now gladly see resuming their activities after a few quiet years.

Last year, one of the key measures related to environmental sustainability was that we investigated the energy efficiency of our own premises to see where we can actually make improvements to our operations. With re-

gard to our products, we enhanced the way ecodesign principles are taken into account in product design. The most notable environmental impacts of our products occur during the last stage of the life cycle, that is, recycling, where we have very limited possibilities to make a difference. Extending the service life of our products is one practical means and so is the serviceability of the products we manufacture. As individuals, we can all affect our personal carbon footprint and, as a result, the sustainability of society outside our workplaces. Last year, we focused especially on employee communication related to energy efficiency and electricity consumption.

In the past year, we reached several sustainability targets, for example, with regard to the employee commitment index (3.7 on a scale of 1–5) and severe quality defects, which we were able to avoid. We were also able to increase the use of sustainable energy sources through our geothermal heat and solar energy projects.

Sustainable growth requires new technology and skills. Bittium, for its part, strives to ensure the green transition, for example, by innovating more environmentally sustainable solutions and by increasing the energy efficiency of our own operations.

Hannu Huttunen

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 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.

# Strategy in a Nutshell

Bittium aims to be a significant global provider of secure and safe communications solutions in the defense and public safety markets and a leading provider of connectivity solutions and R&D services for different industries, as well as a significant provider of remote measuring and diagnostics solutions for measuring and analyzing biosignals.

Bittium's business is divided into three business areas: Defense & Security, Connectivity Solutions, and Medical Technologies.

The Medical Technologies business unit consists of three business areas, which are measuring and analyzing the electrical activity (ECG) of the heart (Cardiac), measuring and analyzing the electrical activity of the brain (EEG) (Neuro), and measuring and analyzing sleep apnea at home (Sleep). In the coming years, alongside the product business, the company will invest in diversifying the software business and increasing the net sales it generates. In the Medical Technologies business, the focus will be on increasing the international customer base and market shares

In the **Defense & Security** business unit, the company offers secure communication solutions for the authority, defense, and other professional user markets. The business consists of tactical communication solutions targeted to the defense market and high-security communication solutions

targeted to the authorities. Over the past years, the company has made significant investments to expand its product portfolio. The products and systems are now internationally at a very competitive level in terms of coverage and technical features. In the next phase, the company will utilize the previously made product development investments and invest strongly in international sales and marketing. The company's goal is to significantly grow the international product business and achieve an internationally significant position as a provider of tactical communication and high-security communication solutions.

In the **Connectivity Solutions** business unit, the company offers its customers product development services and wireless connectivity solutions for the development of new innovative products in a secure and developing wireless environment. In the coming years, the company will focus on growing its international customer base in the Telecom, Industrial IoT, and MedTech market segments.

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

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



# Our Value Creation Model

## Our Key Resources

#### **People**

- Over 600 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

We adapt our deep knowledge to deliver superior technology innovations to enhance connectivity, bring safety and improve health in society.





#### **Our Values**

Trust. Courage. Innovation.

# 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.

#### Accelerating technological development

The rise of embedded software, the management of complex systems ,and the rapid development of technology create opportunities for creating added value. To maintain our competitive edge, we must continue intensifying our in-house technological development.

#### 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.

# Sustainability Management

## Sustainability Organization and Risk Management

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

The working group has six (6) members: CEO; Chief Legal Officer; Vice President, Corporate Communications; Director, Human Resources; CFO; and Head of Quality, the Environment, and Technology Management. The sustainability working group holds quarterly meetings and prepares the sustainability report. The Bittium management and the Board of Directors review the sustainability report on an annual basis (so-called 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 Board of Directors of Bittium Corporation discusses sustainability issues on the basis of the Management Group's proposals and approves the company's annual sustainability report.

The sustainability report describes the applicable methods that guarantee a sufficient level of diligence. 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.

#### Sustainability Management at Bittium

#### THE BOARD OF DIRECTORS

Discusses sustainability issues on the basis of the Management Group's proposals and accepts the annual sustainability report

#### THE AUDIT COMMITTEE

Discusses and prepares sustainability-related matters

#### **CEO AND THE MANAGEMENT GROUP**

Set the targets and monitor the results

Implement the sustainability plans and actions

#### THE SUSTAINABILITY WORKING GROUP

Assesses and reports the impact of operations

Assesses and monitors the risks

## 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 2022.

#### 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.

In 2022, it was again possible to organize meetings with the various stakeholders as the pandemic subsided and restrictions were lifted, which significantly affected the quality of cooperation and the amount of contacts.

#### 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 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 2022, surveys were conducted as online surveys. In 2023, surveys will also include the interviews of selected customers.

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, which is why the lifting of the COVID-19-related travel restrictions in 2022 resulted in customer communication becoming significantly easier, which promoted, among other things, product and project inspections and approvals, which 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. As the COVID-19 pandemic eased, introductions to working life and visits are again organized for students and educational institutions.

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. Because of the COVID-19 pandemic-related restrictions, the 2022 Annual General Meeting was again held online in place of a face-to-face meeting. However, investor and analyst meetings were held as face-to-face meetings.

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 2022, this work was continued with the aim of improving understanding of the company's strategy and business through open and transparent discussion.



# Sustainability at Bittium

## Economic Impact

For Bittium, economic impact means ensuring the long-term profitability of the company's business. 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.

# 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 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.

Bittium's business must respond to the changes in the operating environment to maintain profitability and future competitiveness. The technological transformation and the resulting technology solutions create both opportunities and threats for the company – changes that must be taken into account already during the product development stage.

#### Tax Footprint

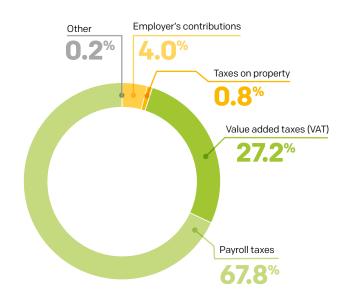
Taxes are part of Bittium's business process, and tax management supports the company's strategy. Bittium is present in five countries and its business profits and the resulting taxes are generated locally.

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. Bittium is committed to complying with the laws of its operating countries as well as lower-level regulations, such as the OECD transfer pricing guidelines. Good corporate

# Tax Footprint in 2022

Taxes collected	2022	2021
Value added taxes (VAT)	-4.0	-2.4
Payroll taxes	-10.0	-10.0
Total	-14.1	-12.4
Taxes borne		
Employer's contributions	-0.6	-0.6
Taxes on property	-0.1	-0.1
Total	-0.7	-0.8
Taxes total	-14.8	-13.2



citizenship is part of Bittium's values. Accordingly, the quality of the company's tax processes is an important cornerstone of Bittium's tax strategy. 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

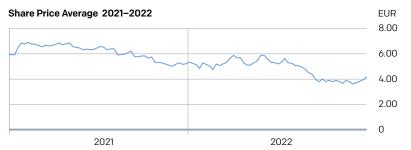
Bittium operates in a sector that creates products and services for the future through continuous development, innovations and cross-sector cooperation. The company plays an important role at the leading edge of technological development, and active cooperation with academic researchers increases understanding 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 2022, Bittium was involved in the role of funding provider and research partner in several EU cooperation projects (for example, ITEA4, Horizon2020 and EDIDP) 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 and the Factory of the Future, the development of Al and machine learning methods in fields such as health care, and methods and operating practices related to regulatory software development.

In 2022, research and development expenses represented 27.0 percent of net sales (2021: 22.8%). They were mainly allocated to the development of medical technology products, a tactical communications system and related products targeted at the defense industry, the development of various devices and special terminal products for the authorities, including related security software.





# 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.

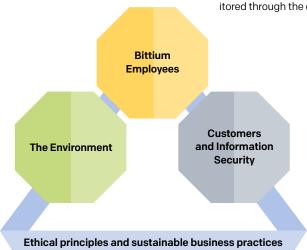
### Materiality Analysis

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 was also utilized in the update of the 2022–2025 sustainability program. A new materiality analysis is planned to be carried out in 2024 to support the new upcoming sustainability 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

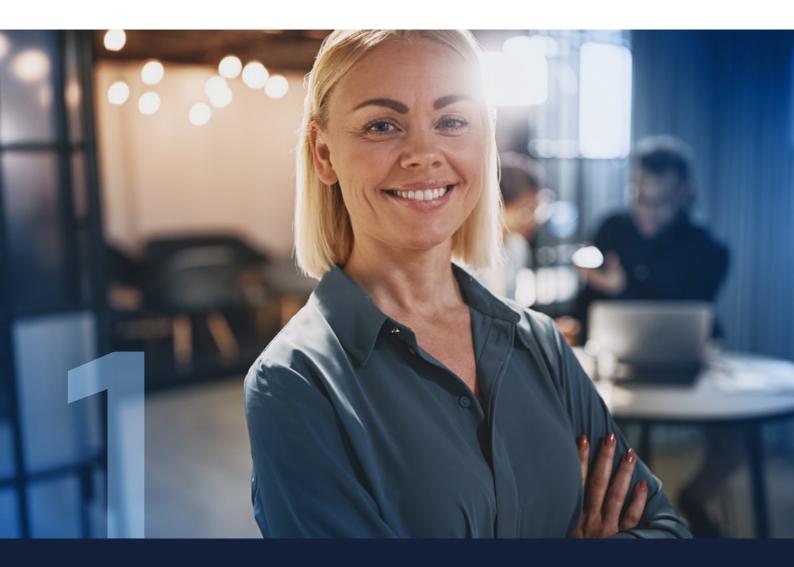
- We meet the special sector-specific and technological requirements of our customers (quality and security)
- We invest in innovative and agile product development
- We ensure the sustainability of our procurement chain

#### #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.



#### FOCUS AREA #1

# Innovative and Developing People

Bittium's operations are based on a deep trust in people and technology. Bittium employees build better connections between people as well as between people and machines. 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 development of competence, supervisory skills, and employer image. 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. Strengthening the employer image plays an important role, as there is fierce competition over the best talent in the industry.

In terms of employees, the key measures in 2022 included the shift to a hybrid work model and the Bittium Leader trainings. During the year, Bittium also wanted to increase the sense of community among its employees and help the employees' children better understand what Bittium does and what types of professions there are. In the BitStock'22 summer party, employees were again able to enjoy spending time together after the COVID-19 pandemic years. At Oulu office Bittium participated once again in the Take Your Child to Work day, which was a success. About 60 children of various ages were able to try product testing and familiarize themselves with the basics of coding or the operation of a robot.

# Objectives and Sustainable Development 2022

In the Innovative and developing people focus area, Bittium's major objectives are monitored with the help of annual measures and key performance indicators. The new sustainability program specified four important aspects and objectives that are relevant to the focus area instead of the three that were monitored previously. Going forward, Bittium measures its development with regard to the following objectives: the employee commitment index, maintenance of employee competence and ensuring special competence, strong employer image and diversity, inclusivity, equality and equal treatment.

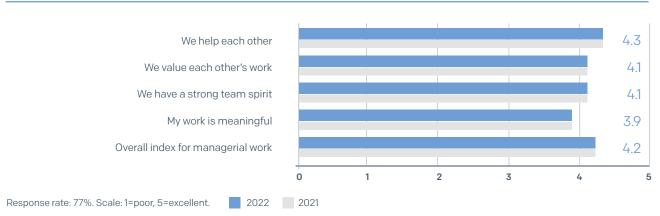
# Employee Well-being and Engagement

In its new sustainability program, Bittium set 3.7 (scale 1–5) as the target for the employee commitment index, and this target was reached. The 2023–2025 target figure for the employee commitment index

is 4. Overall, the Bittium Employee Survey (BES) scores indicate a positive vibe. The organization change that was implemented during the year resulted in rearrangements in teams, and many employees were assigned a new manager as a result of the reorganization. Despite these changes, supervisory work was given a high score (4.16) in the employee survey, even though it declined a little compared to the previous year. Remote work has increased the employees' expectations regarding high-quality managerial work and leadership. Of the employees, 77 percent responded to the employee survey (2021: 73%).

The hybrid work model was adopted as the recommendations for remote work ended in the beginning of 2022. The model was created already earlier in close cooperation with the staff by involving the employees, and in the fall, the practices were refined with a recommendation on common office days for the teams. In practice, the employees work at the office two days a week, with teams themselves deciding on which days work takes place at the office. 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.

#### Bittium Employee Survey 2022: highlights related to sustainability



In addition to the employee survey, four more compact Pulse surveys were conducted in 2022, which were also used for canvassing observations related to the hybrid work model, workload, and recovery. The purpose of the Pulse survey is to obtain up-to-date information on the employees' work-related mood and job satisfaction.

## 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 the 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 a vision of 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 was started in 2021, continued during 2022 as planned, with two new groups starting the training program promoting coaching. The participants include managers, project managers and team leaders. A total of 110 Bittium employees participated in the training.

Online trainings are an important part of the maintenance of the group's common basic skills, and online trainings targeted at all employees are available in relation to processes, methods of operation, systems and tools, among other things.

The company also deployed the Pluralsight learning platform, where employees can participate, for example, in high-quality mini webinars. In the development of skills, current themes are, for example, topics related to information security, quality systems, programming languages, working in a cloud environment, and embedded systems.

In 2022, the average number of training days was 5.1 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. A total 80% of personnel have participated in training in 2022.

### Bittium as an Employer

Early in 2022, Bittium carried out a survey on its external employer image, with approximately 300 respondents. The results indicate that Bittium is seen as a reliable Finnish company, which is known especially for its cooperation with the defense 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. Awareness, which is still poor in some respects, is recognized as a challenge, which is why the company will continue its long-term communication work related to the employer image especially outside the Oulu economic area. The company updated recruiting materials and renewed the visual look.

Bittium canvasses the satisfaction of new employees regarding the orientation training and company image before and after the start of work through surveys. This year, the image score before start of employment was 7.6, but the image improved to 8.1 after employment started. The score accurately reflects the fact that employees find the work community and workplace atmosphere to be good.

## 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. An update to the equality plan is planned for 2023. The actual situation concerning equality at work is assessed in employee surveys from the perspectives of pay, career development and recruitment. The implementation of the equality survey planned for 2022 was shifted to 2023.

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 2022.

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 under-represented in this field, and to non-binary persons. This is advanced by the measures taken during the year, such as active cooperation with schools and student organizations. An example of cooperation with schools during this year is 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. The participation in the event supported Bittium's objective to stay in the minds of young people as an interesting employer and to increase awareness of the diverse nature of the technology industry.

# Managerial Work and Performance Reviews

With the transfer to remote work, monthly sessions for managers, Leadership coffee breaks, were started at Bittium. These sessions have been continued as one method to support managerial work. In these sessions, the HR and managers have the opportunity to discuss topical issues, which supports the maintenance of Bittium's interactive corporate culture.

In accordance with the performance review model, the employee and manager have an informal quarterly discussion (Quarter Chat). A key objective of the switch to more frequent, regular discussions has been to take into consideration individuality, support well-being at work and build trust in the relationships between managers and employees. The employees can also agree to have separate longer conversations, especially with regard to a long-term competence development plan. This actual performance review is held at a time that effectively supports competence development.

# 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. The need for occupational health care services at Bittium was higher than normal in the first six months of the year. There were fewer short sick leaves, whereas the number of longer sick leaves

was somewhat higher. The number of sickness absences followed the general trend and reached a level higher than before the pandemic.

The model for early support was explained to both employees and managers as part of the Bittium Leader training. The model is considered to involve the entire work community, and it helps increase openness. From the perspective of work-related stress, it is important that one is allowed and able to talk about coping, as this enables a change towards a healthier corporate culture. Coping, the role of the work community in well-being at work and psychological safety are some examples of the discussion topics for the HR coffee breaks during the year. There were a total of ten sessions, and they were met with huge interest from the employees: an average of 200 Bittium employees participated in each event.

Based on the workplace surveys carried out by the Occupational Health Service, Bittium is a good, healthy company. Matters to be discussed in the report include e.g. occupational safety and occupational well-being. Based on the results, attention was paid to, among other things, work ergonomics, especially in remote work, and the rules of the game for working in an open office.

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 and the Cuckoo Workout application. 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 such concerns were reported in 2022.

Bittium's HR management and OHS function analyze occupational accidents at regular intervals and whenever particular risks emerge. In 2022, a total of 5 occupational accident reports were submitted in Bittium's companies in Finland, from which 3 were classified as a work accident. None of these accidents led to disability to work.

## Relevant Sustainable Development Goals by the UN

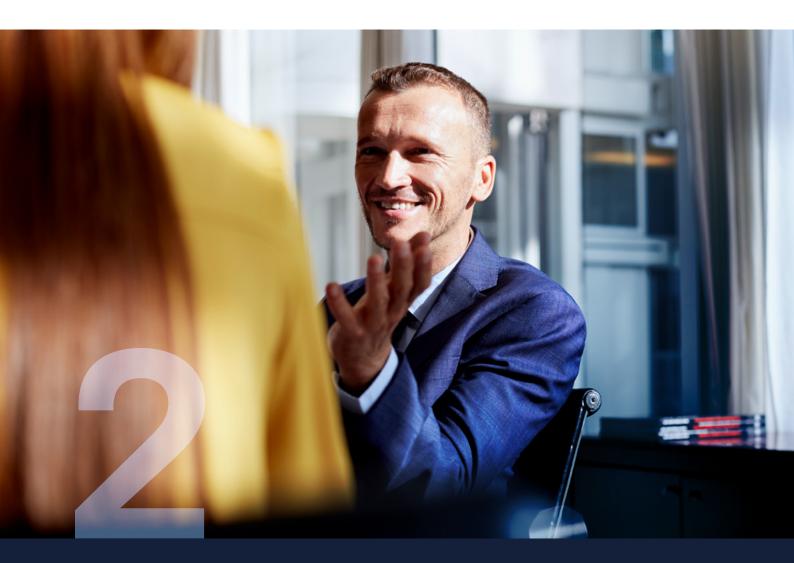




The measures related to the occupational well-being and promotion of the work ability of Bittium's employees, safety and equality plans, and the offered employee benefits promote sustainable development goal no. 8 (decent work and economic growth). The company's investments in R&D activities and the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







#### FOCUS AREA #2

# Confidential Customer Relationships and Secure Products

Bittium helps its customers prevent threats related to information and national security and use technology to create added value in relation to existing products or the development of new products. Bittium also helps its customers in the healthcare sector by providing them with remote measurement solutions in response to the cost pressure and efficiency requirements that the healthcare sector is currently facing. It all starts with trust – trust in the safety and quality of our work and products and trust in our advanced technology and information security competence. These are the culmination of our competitiveness and our way of creating value in society.

Confidentiality and ensuring information security are part of Bittium's sustainability. Trust is one of Bittium's values and a necessary condition for the company's business. It is an essential element of Bittium's customer relationships, products, services, and working methods. Bittium's working methods are characterized by a strong focus on information security and ensuring the confidentiality of the customers' data. The products are designed to be secure, always taking the customers' needs into account. 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.

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.

Bittium responds to the constantly growing and changing information security requirements by monitoring global information security threats in real-time, by training employees, and by participating in Finnish, European, and international information security development projects.

Bittium's method of ensuring the sustainability of product materials and the supply chain is described in the **Corporate citizenship and sustainable business practices** section

# Information Security Management

Ensuring information security constitutes such an integral part of Bittium's business that the company has developed a specific management system, including a management group, for this purpose. Information security objectives and responsibilities as well as the resourcing of operations are defined in the system.

The management system covers information security-related policies, guidelines, and templates pursuant to the standards and requirements (ISO 27001, Katakri 2015,

and FSC) as well as the requirements set by the customers and law. In practice, they completely cover the information security of the company's operations and also the information security of the physical premises and employees.

Bittium has a real-time monitoring system for information security threats and the employees have also been trained to take responsibility for information security and report any information security threats they observe. Employees also receive training on the use of working methods and procedures that help maintain a high level of 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 2022

In terms of customer relationships, the key points related to Bittium's sustainability theme Confidential customer relationships, and secure products concern cooperation, customer understanding, and project management and, from a new viewpoint, product, and service quality, for which the key metrics are the number of severe quality defects. Customer and project satisfaction is measured through annual surveys, with separate objectives set for each area. In regard to information security threats, the principle of continuous development is applied to products and operations, but the more detailed objectives are the following four points, each of which is measured separately. The objectives are:

- Maintenance and development of information security certifications on the basis of audits.
- Detecting information security incidents and ensure quick reactions and fixes.

- Continuous monitoring of principles and policies related to information security practices and providing training for employees.
- 4. Improving the information security of own products and development of new technology.

The role of information security as a competitive factor is included in the new sustainability program for 2022–2025. In this area, Bittium aims to strengthen the company's role in the recognition of information security threats and the utilization of information together with stakeholders, and the company also aims to participate in information security development projects and key forums at the EU level and otherwise.

## Customer and Project Satisfaction

Bittium measures both customer and project satisfaction on an annual basis by using NPS, that is Net Promotor Score. This year, the targets were NPS 49 for customer satisfaction and 48 for project satisfaction. In the annual customer satisfaction survey, the NPS increased to 50, and in the project satisfaction survey to 56.

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 2022. The COVID-19 pandemic caused global problems in the availability of electronic components, which had a significant effect on Bittium's ability to deliver products to its customers during the past year. In 2021–2022, the company took supply chain-related measures, which are described in more detail in the Corporate citizenship and sustainable business practices section.

## Information Security Threats

Bittium has in place an information security management system based on the ISO 27001 standard, and the system was audited in 2022. In the audit, only one minor deviation was discovered, regarding which the necessary corrective actions have been taken. Bittium also updated the Statement of applicability policy, which is related to the ISO 27001 standard, with the policy specifying Bittium's information security principles. Furthermore, Traficom conducted audits during the year in relation to technical information security.

During the year, 114 information security incidents were discovered, which is 19% less than in 2021. The deviations were minor by their nature and had no significant effects on Bittium's operations.

In relation to information security, the employees were provided with self-study training related to the ISO 27001 standard and training that helps recognize phishing.

Vulnerability management was expanded during the year to new operational areas in connection with product development. In order to meet customer requirements, the number of vulnerability analyses that were carried out increased compared to previous years.

# 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. Active participation in the industry's development projects has a positive effect on the building of sustainable society.

The iMUGS (integrated Modular Unmanned Ground System) project under the European Defence Industrial Development Programme (EDIDP), which started in 2020, develops new capabilities for the defense forces of European countries based on autonomous systems. In the project, Bittium is responsible for the execution of resilient and networked data transfer, including both tactical communications and data transfer over commercial 4G and 5G cellular networks. In the project, Bittium, as part of a consortium, demonstrated especially hybrid networking in the past year.

The CyberFactory #1 (CF #1) project, which ended in 2022, aimed to design, develop, integrate and demonstrate a set of key capabilities to promote the optimization and resilience of the Factory of the Future, Industry 4.0. The project involved pilot users and suppliers as well as research and academic organizations from seven countries. Bittium's role was to develop cyber security architecture and capabilities in its products and manufacturing support systems, such as in device management solutions. The project received the ITEA Innovation Award in September 2022.

The end of 2022 saw the launch of the 5G Compad project (EDF, European Defense Fund), the purpose of which is to enable secure tactical communication solutions in the integration of defense infrastructure and 5G networks. Bittium is responsible for the specification of the information security architecture in the project.

During the year, Bittium also participated in the activities of a group of Finnish companies that focuses on information security threats and in multiple events where the tackling of information security deviations or technical capabilities were practiced. The Tieto22 exercise and the NATO Edge event in Brussels, Belgium, are some examples of past events. Bittium was part of the team of Finnish companies that won the international cyber defense exercise, Locked Shields 2022. https://ccdcoe.org/news/2022/finland-wins-cyber-defence-exercise-locked-shields-2022/

# Product Information Management

Bittium has continued the development of product information management that began in 2020 and the deployment of related tools. The project involves checking that all existing product information is up-to-date. The system was deployed for first products in 2022, but the work will continue in 2023.

# Systems and Standards

Standards define the industry's common operating methods that make life easier for the authorities as well as the companies in the industry. Standardization also makes it easier to promote global exports.

Certified integrated management systems are an important tool with which Bittium can improve its efficiency and reliability, transparency and customer satisfaction. Customers increasingly expect Bittium's products and working methods to be standardized and certified.

Bittium had six certified systems in use at the end of 2022. All in all, more than 400 different standards, approximately 120 of them on a daily basis, are observed in Bittium's operations. All of Bittium's management systems are audited by an external party on an annual basis.

Bittium also applies product branch-specific product approval procedures, such as MDSAP (Medical Single Audit Program) in technology products intended for the medical field. The changes in procedures, products and approval processes arising from the EU Medical Device Regulation were taken into account in Bittium's Medical Technologies business in 2022.

As proof of meeting the MDR requirements, Bittium Biosignals Oy was granted a quality system approval according to the MDR regulation by a classified institution in June 2022, and during the end of the year the first product approvals according to the MDR regulation. Bittium is well on schedule in implementing the earlier MDR regulation schedule (by May 2024) for Bittium's prod-

ucts. However, it should be noted that the EU and national authorities have announced transition time extensions for the MDR regulation at the end of 2022, which will be confirmed around 2023.

The relevant industry standards are applied in the design of the electrical safety and performance features of Bittium's products. Customer, country and market-specific requirements are also taken into account in hardware development.

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).

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).

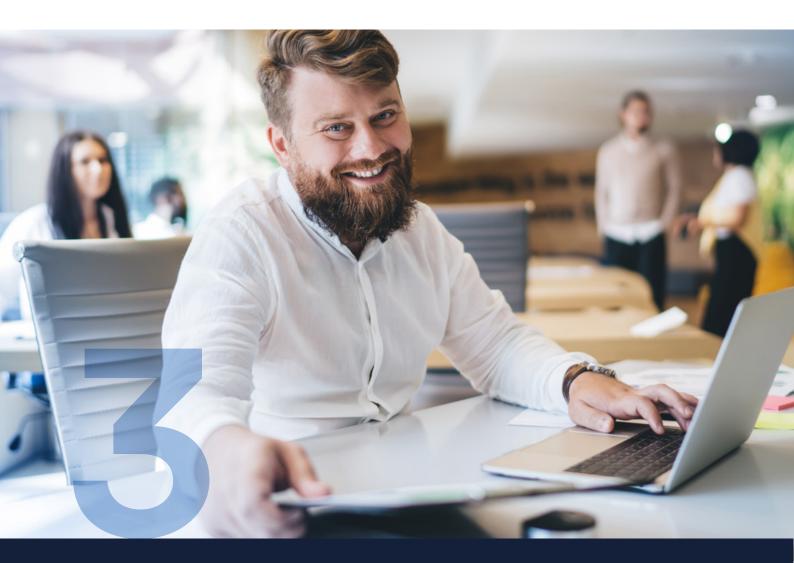


STANDARDS AND DIRECTIVES OBSERVED

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



#### FOCUS AREA #3

# Corporate Citizenship and Sustainable Business Practices

Good governance and ethical business practices are the foundation of Bittium's operations and a prerequisite of business. It is vital for the company that its customers and other stakeholders trust in Bittium, its product quality, and sustainable development. Bittium aims to be a partner with which dialog is easy and solution-oriented.

Bittium has a wide network of partners and stakeholders. At Bittium, sustainable corporate citizenship means that sustainable business practices are strengthened throughout the value chain, with a positive impact created in society at both the local and global levels. 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. In 2022, Bittium participated in several significant research and development projects in the industry and developed its stakeholder dialog through active discussions with investors. Internal and external Compliance policies were strengthened by preparations related to the requirements of the upcoming Whistleblower Directive.

# Compliance with Requirements, Good Governance and Anticorruption Measures

Bittium's customers operate in multiple industries, in both the public and private sectors. 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 for 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 culture of doing the right thing is deeply ingrained in the work community and promoted by the participative and uncomplicated discussion atmosphere.

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 organizational 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's employees and external stakeholders have access to feedback and reporting channels and a whistleblowing channel for any misconduct they observe. Instructions on the use of such channels have been provided to the employees in Bittium's intranet and orientation training.

# Sustainable Purchasing

Bittium's products contain a range of electronic and mechanical components. The sustainability of the purchasing chain is ensured, for instance, through material and component supplier requirements and material assessments. Bittium maintains a database in which it records all the materials and substances contained in components.

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 as well as the Bittium Supplier Requirements. The guidelines are available on Bittium's website and suppliers are always expected to comply with the latest version of the guidelines. 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 Requirements. During the year, no violations or significant non-conformities 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 Requirements or as an audit conducted by Bittium. In 2022, Bittium focused on auditing its critical manufacturing partners and, where appropriate, component suppliers, which were carried out on-site in supplier premises. Audits carried out as self-assessments continued with new suppliers. As regards international suppliers, local partners have been used for audits. This approach has enabled on-site audits in China regardless of travelling restrictions,. During the year, development measures related to supplier management included among others supplier management tool development and deployment.

In 2021, Bittium started a development project entitled Marimin with the aim of finding more Finnish and European suppliers of critical components. As part of this project, Bittium evaluated a large number of suppliers and investigated its possibilities to transfer the manufacturing of mechanics-related parts to Finland. The project ended in 2022 and yielded concrete results: the new supplier potential that was evaluated and found enabled some of the manufacturing of parts related to mechanics being permanently transferred to Finland and European supply chains.

The global problems with the availability of electronic components resulted in rapid changes in the company's business environment and significantly weakened the product delivery capability. In order to improve the situation caused by the availability issues, Bittium extended the visibility to material purchases during the year and ordered critical components to secure deliveries in 2023 and 2024. Furthermore, product changes were made in order to enable the use of alternative components in our products. The company will continue to monitor the situation and aims to actively ensure the availability of components needed for product deliveries.

### 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. In this way, it can be ensured that the minerals used in Bittium's products do not originate from conflict or risk zones.

In practice, the legislation requires sustainable purchasing and transparent supply chains with respect to certain minerals, such as tin, tantalum, wolfram, and gold from conflict areas. These minerals are typically used in household goods and their electronic components, such as mobile devices and computers.

Bittium continuously monitors any non-conformities related to conflict minerals with the help of updated requirements, external databases, and the product information management system. In 2022, 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 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. No counterfeit materials were found in Bittium's products in 2022

### Objectives and Sustainable Development 2022

Bittium's objectives for the past year in the focus area of sustainable corporate citizenship and good business practices included topics related to a sustainable supply chain, development of stakeholder cooperation, aspects of sustainable corporate citizenship, and anti-corruption measures. With the update to the sustainability program, the objectives and metrics for the focus area were further specified, with annual lower-level targets set for the various themes. The sustainability program for 2022-2025 focuses on the monitoring of development in relation to the key objectives for promoting Bittium's ethical business practices: reducing the risk of unethical business practices, partner and supplier commitment to the Code of Conduct through agreements, preventing corruption and developing an increasingly open dialog with the various stakeholders. The objectives set for 2022 and the related outcomes are described below.

#### Sustainable Corporate Citizenship

The objectives for sustainable corporate citizenship included measures ranging from the monitoring of legislation and regulations to export control and developing local business operations and supporting schools and educational institutions. The changes that took place in the past year regarding regulations and requirements that are relevant to Bittium's operations were, above all, related to environmental issues and sustainability.

For Bittium, preparing for the requirements of the EU's regulation on taxonomy and ecological design, which is part of the EU's Green Deal promoting a green transition has meant, for example, specifying the operations referred to in the taxonomy in 2021 and 2022 and development work related to product information management. In its current form, the EU taxonomy comprises the most essential economic activities in terms of the significant promotion of the EU's climate goals. Bittium's more detailed taxonomy reporting is presented in the Board of Director's Report 2022. The EU taxonomy is still unfinished and Bittium's review may change when new taxonomy sets are completed.

Bittium also participated, together with the Finnish energy authority, in the specification work for life cycle standards complying with the Ecodesign regulation, which will be published in the near future.

Export control promotes the sustainable export of Finnish products and technology, while for Bittium's customers it constitutes an important part of operations. Effective export control is a precondition for successful cooperation with the authorities as well as customers. Bittium is one of the first companies in its size category to incorporate a comprehensive export control system into its management system. Compliance with the international provisions concerning export control and sanctions, which restrict the export of some products and technologies

or prohibit it altogether, is a crucial part of a sustainable internationalization. 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. At Bittium, the number of export license applications has increased after the COVID-19 pandemic. In 2022, Bittium continued its development work related to the export control system and procedures, which increased the efficiency of license application processing.

Bittium sees that it is important to support the work of schools and educational institutions and future competence development. In the past year, Bittium was able to continue visits by educational institutions, which it considers important. Two visits to Bittium's head office in Oulu were arranged.

# 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 past year, Bittium, among other things, continued its active dialog with investors in the Inderes discussion forum in order to increase and improve its investor communication. The aim is that open and transparent discussion provides answers to the investors' questions and thus increases the understanding of the company's business. More information on stakeholder cooperation is provided under 'Sustainability management'.

For Bittium, year 2022 also involved planning and preparation work related to development projects concerning stakeholder cooperation. In 2023, Bittium will launch a partner program for increasing and strengthening the dialog with partners. Another aim of the partner program is to increase the partners'

commitment so that they are even more integrated into Bittium's product distribution

#### Anti-corruption Measures

Bittium expects that its employees and partners are committed to the company's anticorruption policy. Mandatory training on anti-corruption measures is provided for employees as part of the orientation training, all new employees completed the related online self-study module in 2022. The Anti-Corruption training package will be revamped in 2023. No irregularities were observed and no corruption cases were confirmed during the year.

During 2022, Bittium developed its notification channel procedures by establishing its own whistleblowing channel, through which employees and stakeholders outside the company can report their well-founded suspicions about abuses concerning the company's operations. The channel will be put into use in 2023. The company has precise processes for monitoring and processing notifications, and notifications are investigated urgently and confidentially, protecting the identity of the person making the notification.

#### Sustainable Supply Chain

In the upcoming years, Bittium aims to have all its partners and suppliers commit to the Code of Conduct through agreements. In order to reach the target, Bittium specified during the year the critical suppliers for health care technology products and services that are subject to specific supplier requirements, among other things, with regard to components and manufacturing. Bittium will continue to review its suppliers and partners in 2023 and the company aims to include the Code of Conduct in new agreements and renewed frame agreements by the end of 2025.

### Relevant Sustainable Development Goals by the UN



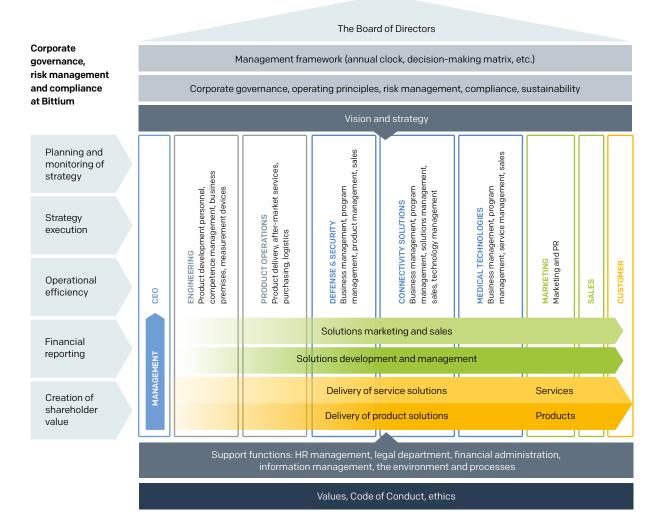




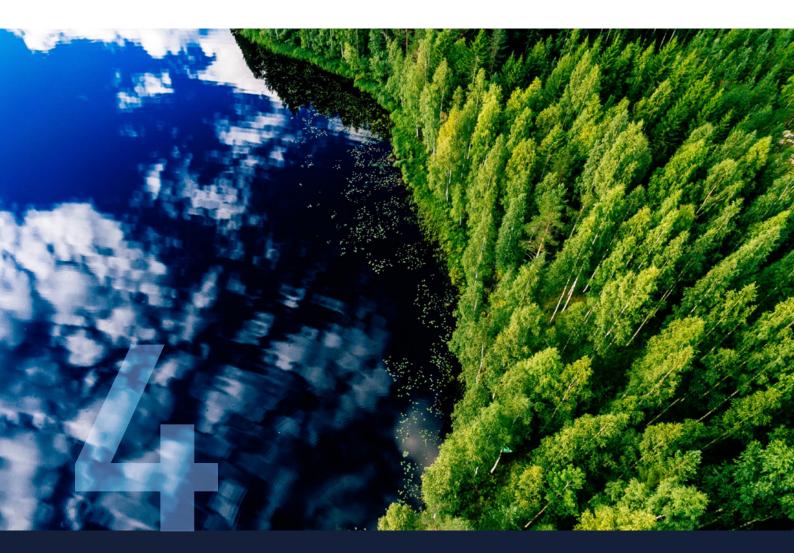


Bittium's actions related to sustainable corporate citizenship, good governance, and anti-corruption measures promote, in particular, the sustainable development goals no. 8 (economic growth and employment), no. 12 (responsible consumption), no. 16 (peace and justice) and no. 17 (partnership). Sustainable 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 sustainability 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.

Bittium is committed to the prevention of corruption in accordance with the company's anti-corruption statement and it reports corruption incidents as part of its sustainability reporting, which supports the objective to establish efficient and sustainable institutions. Cooperation and partnerships are an important part of Bittium's sustainability work, and dialog with customers and partners regarding the developed solutions helps produce appropriate and resource-efficient products that benefit the customers and society while reducing waste.







#### 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 is a key focus area in Bittium's corporate sustainability program, which is guided by the company's environmental policy, legislation on environmental protection and sustainable development and various international principles as well as customer requirements. The most notable environmental impacts of Bittium's products occur during the last stage of the life cycle, that is, recycling. However, all stages of the value chain have effects on the environment, and Bittium actively strives to reduce the environmental effects of its value chain.

At Bittium, environmentally sustainable operations mean responsibility for curbing the climate change and the development of resource-efficient solutions. In 2022, Bittium investigated, in particular, its possibilities to improve the energy efficiency of its premises and the company enhanced the way ecodesign principles are taken into account in product design.

### Management of Environmental Sustainability at Bittium

Bittium has a certified environmental management system, which applies the most recent 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 major 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 EU's proposed regulation on ecological design for sustainable products was published in early 2022. The provisions of the upcoming Ecodesign regulation framework will be applied in Bittium's product design and product development. In its product design, Bittium will also take 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).

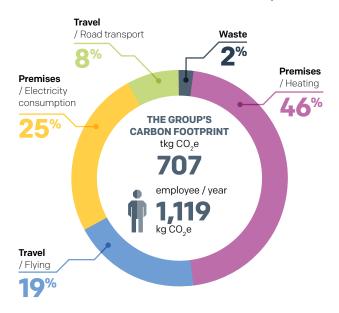
# Environmental Objectives and Sustainable Development 2022

In 2020, Bittium launched an environmental program that continued until 2022. The ultimate objective of the program was to reduce Bittium's carbon footprint, with the most relevant areas including the recycling of waste generated by the company's operations, the use of renewable energy and increasing environmental awareness among Bittium's employees. The environmental objectives set for 2022 and the related outcomes are described below.

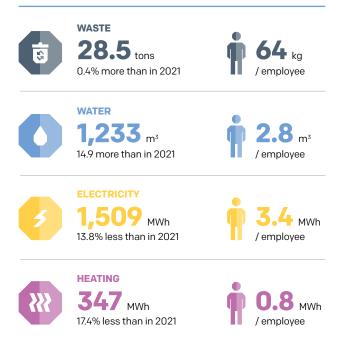
In the second half of 2021, Bittium created a new sustainability program for the period 2022–2025, in which the previously specified focus areas were regrouped. The previous environmental objectives remained more or less unchanged in the update, but the metrics applied to them were further specified. Going forward, Bittium monitors three environmental indicators measuring the environmental effects of its operations, that is, the development of the carbon dioxide equivalent (CO $_2$ ekg), the development of energy consumption (MWh) and the percentage share that renewable energy accounts for of total energy consumption.

#### **Environmental Sustainability Indicators**

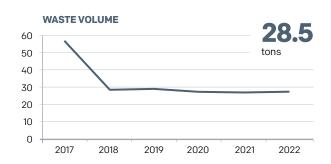
The company is following the annual level of environmental protection continuously. The following indicators have been selected as essential environmental environmental sustainability indicators.

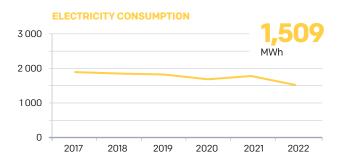


# **Bittium's Environmental Sustainability Indicators**, Oulu Office



**Environmental Sustainability Indicators 2017–2022** (Trend), Oulu Office





### Maintaining the Waste Recovery Rate at Over 95 Percent

Most of the waste generated by Bittium is packaging waste. The waste volume has remained relatively stable since 2018 in spite of the delivery volumes of Bittium's products increasing over the years. As manufacturing partners have taken a larger role in the supply chain in the past few years, a larger share of manufactured components and partial assemblies are delivered directly to factories, which reduces the amount of waste generated at Bittium. It has also been possible to further reduce packaging waste by simplifying the packaging modules that are used.

Bittium strives to minimize waste generation in all operations and deliver all waste for recycling. 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 99.77 percent in 2022.

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

The carbon footprint of Bittium's premises and facilities amounts to 71 percent of the total carbon footprint. Improving energy efficiency is one of Bittium's key objectives in terms of the reduction of its 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 percent comes from renewable sources, 24 percent is emission-free and 38 percent comes from fossil sources

In the past year, Bittium reviewed the energy profiles of its business premises for both electricity consumption and heating. Renewable energy sources accounted for 40 percent of heat energy and 36 percent of electrical energy. The development of the business premises' energy efficiency was continued in the geothermal heat and solar energy projects. Geothermal heating was implemented in the property located in Kuopio, which increased the share of renewable energy. During the year, at best, 13 percent (2021:13%, 2020: 13%, 2019: 11.9%) of the electricity used in the Oulu premises was solar power-based.

### Reducing Carbon Footprint

Bittium calculated the Group's total carbon footprint for the fifth 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 2022 was <2,900  $\rm CO_2e$  kg/employee. Our total carbon footprint was 707  $\rm tCO_2e$ , 1,119 kg  $\rm CO_2e$ / employee (2021: 719  $\rm tCO_2e$ , 1,096 kg  $\rm CO_2e$ / employee; 2020: 753  $\rm tCO_2e$ , 1,130 kg  $\rm CO_2e$ / employee; 2019: 1,153  $\rm tCO_2e$ , 1,755 kg  $\rm CO_2e$ / employee; 2018: 1,219  $\rm tCO_2e$ , 2,865 kg  $\rm CO_2e$ / employee).

In 2022, Bittium introduced a hybrid work model and reviewed its effects on the development of carbon footprint. However, the adoption of the hybrid work model did not have significant effects on the reduction of carbon footprint, as a major share of the electricity consumption in Bittium's premises is related to testing work carried out on desktop computers.

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, as there will be less need for transport.

\* 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.

# Increasing Environmental Awareness Among Employees

One objective in the environmental program was increasing environmental awareness among Bittium's employees. As part of the environmental program, employees were provided with both mandatory and optional training on the implementation of environmental sustainability. In 2022, Bittium continued to arrange environmental training: mandatory basic training is part of orientation training, with further training organized as required for the work duties. Sustainable development competence was also promoted through the Climate change campaign, where topics related to energy efficiency and electricity consumption are communicated on a regular basis. The campaign also allows employees to share their own best practices, for example, for electricity saving or recycling.

# 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 de-

sign 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 2022, Bittium strived, through joint discussions, to strengthen its manufacturing partners' commitment to production that is in line with the circular economy.

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 decades. 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 redesign of products; the long service life of products provides an opportunity to create environmentally sustainable solutions on the basis of old product models. When old and new technology is combined, the old product platforms are developed into a more environmentally friendly direction, with the requirements of the most recent regulations taken into account while making no compromises on the service life.

The service life of products can also be extended by developing maintenance. In 2022, Bittium continued to develop its maintenance operations by increasing the customers' possibilities to perform maintenance independently, which reduces the logistics emissions of maintenance.

In the past year, Bittium also improved the efficiency of its operations through the digitalization of production. The implementation of the shift to paperless production was started by developing internal processes. All production instructions were transferred as electronic documents to Bittium's intranet, which enables up-to-date information management in one location and increases the efficiency and accuracy of production.



### Ecodesign Accelerates Sustainable Product Design

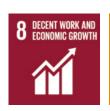
In early 2022, the EU's Ecodesign Directive entered into force in the EU area, with the Directive specifying the ecological demands to be applied in the design and development of products that use energy. The Directive promotes sustainable development by improving energy efficiency and the level of environmental protection, while also improving the security of energy supply. The scope of the Directive's application will expand 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.

For a long time already, Bittium's product design and development have been guided by a model that is compliant with the EcoDesign principle and takes into account the environmental effects of products throughout their life cycle, with the aim of improving the energy efficiency of products. Systematic and proactive work aiming to prevent negative effects on the environment forms a good basis for meeting the requirements of the recent Ecodesign Directive. In the past year,

Bittium actively participated in the authorities' work on the Directive at the Finnish and EU levels and Bittium commented on the draft Directive. As part of its advocacy work, Bittium also participated at the EU level in the specification of a secure smart phone, which may not be disassembled.

In the future, regulations and customer requirements will further increase the demand for sustainable products. The EU's proposed regulation on the ecodesign of sustainable products also includes a digital product pass, which would enable information to be collected of the various phases of value chains, such as product use, maintenance and recycling. At Bittium, the collection of product information was enhanced throughout the year, in particular, with regard to the management of environmental data. Information on the products' environmental effects during their life cycles and their energy efficiency was imported in a more efficient manner to the PLM (Product Lifecycle Management) system, in addition to which the processes for environmental data management were further specified. The development work aims to use real-time information to increase product transparency, as required by the digital product pass.

### 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 fifth extensive report on the management and implementation of sustainability at Bittium. The year 2022 was the first year of the new sustainability program, in accordance with which Bittium has implemented sustainabilityrelated themes by developing metrics and providing more extensive information on the impacts of its operations. The new sustainability program is an updated version of the 2020-2022 sustainability program, which was based on a materiality analysis carried out in 2019, the purpose of which was to gain understanding of our stakeholders' views regarding our 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. The reported financial figures are based on Bittium's audited financial statements from 2021 and 2022.

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 and https://vuosikertomus.bittium.com.

#### Scope of the Report

The period covered by the sustainability report is the same as the financial period, 1January–31December 2022. Environmental data is not reported from offices where the company only uses a part of the office premises.

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 2022 sustainability report follows the core level of the GRI Standards guidelines. 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.

# Bittium's Sustainability Contact Person:

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### **GRI Content Index**

Bittium's Annual Report 2022 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 1 January 2022 to 31 December 2022.

GRI used: GRI 1: Foundation 2021

Disclosure	Reporting contents	Location in Bittium's annual reporting	Additional information
GRI 2: Genera	al Disclosures		
2-1	Organizational details	Bittium in 2022; Business and Operating Environment, p. 8	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, the USA, Mexico, and Singapore. More information about the offices is on the website: www.bittium.com/about-bittium/facts-figures/bittium-locations  Bittium Corporation's articles of association are available on the website: www.bittium.com/investors/corporate-governance/articles-of-association
2-2	Entities included in the organization's sustainability reporting	Sustainability at Bittium in 2022; Reporting, p. 84	
2-3	Reporting period, frequency and contact point	Sustainability at Bittium in 2022; Reporting, p. 84	
2-4	Restatements of information	Sustainability at Bittium in 2022; Reporting, p. 84	There are no restatements of sustainability information in this report.
2-5	External assurance	Sustainability at Bittium in 2022; Reporting, p. 84	
2-6	Activities, value chain and other business relationships	Bittium in 2022; Business and Operating Environment, p. 8, Products and Services p. 12, Sustainability at Bittium in 2022; Bittium's value creation model p. 52	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 2022; Innovative and Developing People, p. 67	The total number of employees at the end of 2022 was 625, of which 86 (14%) were female and 539 (86%) were male. There were 591 employees in permanent employment, of which 84 (14%) were female and 507 (86%) were male. The proportion of fixed-term employment contracts was 2% for women and 6% for men. The proportion of part-time employment contracts was 7% for both women and men. The proportion of full-time employment contracts was 93% for both women and men. 1% of employees worked on zero-hour contracts (0% female, 1% male). There were no significant changes in the number of employees during 2022.
2-9	Governance structure and composition	Corporate Governance, p. 30; Corporate Governance, Bittium Corporation, Board of Directors, Board Committees	

Disclosure	Reporting contents	Location in Bittium's annual reporting	Additional information
GRI 2: Genera	al Disclosures		
2-10	Nomination and selection of the highest governance body	Corporate Governance, p. 32; Diversity Principles of the Board of Directors	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, p. 30; Corporate Governance, Bittium Corporation, Board of Directors	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 2022; Sustainability Management, p. 54, Corporate Governance, p. 33; Annual Clock 2022	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 2022; Sustainability Management, p. 54	
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 2022	Bittium Corporation's remuneration policy and remuneration reports are available on the company's website: www.bittium.com/investors/corporate-governance/remuneration
2-20	Process to determine remuneration	Bittium Corporation's Remuneration Report	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.  Bittium Corporation's remuneration policy and remuneration reports are available on the company's website: www.bittium.com/investors/corporate-governance/remuneration

Disclosure	Reporting contents	Location in Bittium's annual reporting	Additional information
GRI 2: Genera	l Disclosures		
2-22	Statement on sustainable development strategy	Sustainability at Bittium in 2022; The CEO's Statement on Sustainability, p. 48	
2-23	Policy commitments	Corporate Governance p. 41; Main Features of Internal Control and Risk Management Processes Related to the Financial Reporting Processes, Sustainability at Bittium in 2022; Corporate Citizenship and Sustainable Business, p. 73, Sustainability at Bittium, p. 58, Bittium's Ethical Principles and Code of Conduct, p. 55	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: www.bittium.com  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.
2-24	Embedding policy commitments	Corporate Governance p. 41; Main Features of Internal Control and Risk Management Processes Related to the Financial Reporting Processes, Sustainability at Bittium in 2022; Corporate Citizenship and Sustainable Business, p. 73, Sustainability at Bittium, p. 58, Bittium's Ethical Principles and Code of Conduct, p. 55X	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 2022; Corporate Citizenship and Sustainable Business, p. 75	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 2022.
2-28	Membership associations		Teknologiateollisuus ry
2-29	Approach to stake- holder engagement	Sustainability at Bittium in 2022; Sustainability Management, p. 55	

Disclosure	Reporting contents	Location in Bittium's annual reporting	Additional information
GRI 3: Materi	al topics		
3-1	Process to determine material topics		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: annualreport2019.bittium.com/sustainability_report/focus_areas_in_sustainability  With the update of the sustainability program, the goals and metrics of the focus areas were specified, and yearly subgoals 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.
3-2	List of material topics	Sustainability at Bittium in 2022; Innovative and Developing People, p. 62, Corporate Citizenship and Sustainable Business, p. 72, Trust- based Customer Relationships and Secure Products, p. 68, Environment, p. 78	
3-3	Management of material topics	Sustainability at Bittium in 2022; Outputs and effects, p. 53, Innovative and Developing People, p. 62, Corporate Citizenship and Sustainable Business, p. 72, Trust- based Customer Relationships and Secure Products, p. 68, Environment, p. 78	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
GRI 201: Ecor	nomic Performance		
201-1	Direct economic value generated and distributed	Sustainability at Bittium in 2022; Economic Impact, p. 59	
201-4	Financial assistance received from government	Notes to the Consolidated Financial Statements, 4. Other profits of the business	
GRI 205: Anti	-corruption		
205-2	Communication and training about anti-corruption policies and procedures	Sustainability at Bittium in 2022; Corporate Citizenship and Sustainable Business, p. 75	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 2022 all new employees completed the electronic self-study module included in the training.
205-3	Confirmed incidents of corruption and actions taken	Sustainability at Bittium in 2022; Corporate Citizenship and Sustainable Business, p. 75	Bittium's personnel and external stakeholders use feedback and reporting channels as well as a reporting channel for detecting abuses. During 2022, Bittium Corporation did not report any corruption suspicions or cases.
GRI 301: Mate	erials		
301-1	Materials used by weight or volume	Sustainability at Bittium in 2022; Environment, p. 81	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.
GRI 302: Ener	rgy		
302-1	Energy consumption within the organization	Sustainability at Bittium in 2022; Environment, p. 81	
302-4	Reduction of energy consumption	Sustainability at Bittium in 2022; Environment, p. 81	
GRI 303: Wat	er and Effluents (2018)		
303-1	Interactions with water as a shared resource	Sustainability at Bittium in 2022; Environment, p. 80	Reported total water consumption and water consumption per person for Bittium locations. No water is used in the production of the products.
GRI 305: Emi	ssions		
305-1	Direct (Scope 1) GHG emissions	Sustainability at Bittium in 2022; Environment, p. 80	Reported carbon footprint.
GRI 306: Was	ste (2020)		
306-2	Management of significant waste- related impacts	Sustainability at Bittium in 2022; Environment, p. 81	

Disclosure	Reporting contents	Location in Bittium's annual reporting	Additional information
GRI 403: Occ	upational Health and Safe	ety (2018)	
403-1	Occupational health and safety management system	Sustainability at Bittium in 2022; Innovative and Developing People, p. 65	
403-2	Hazard identification, risk assessment, and incident investigation	Sustainability at Bittium in 2022; Innovative and Developing People, p. 65	Bittium is constantly developing its occupational safety processes and risk management. More information regarding subcontractors can be found in the Bittium Supplier Manual: www.bittium.com/about-bittium/suppliers/supplier-manual
403-3	Occupational health services	Sustainability at Bittium in 2022; Innovative and Developing People, p. 65	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 2022; Innovative and Developing People, p. 65	
403-5	Worker training on occupational health and safety	Sustainability at Bittium in 2022; Innovative and Developing People, p. 65	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 2022; Innovative and Developing People, p. 65	
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relation- ships	Sustainability at Bittium in 2022; Innovative and Developing People, p. 65, Corporate Citizenship and Sustainable Business, p. 73, Trust- based Customer Relationships and Secure Products, p. 69	More information regarding subcontractors can be found in the Bittium Supplier Manual: www.bittium.com/about-bittium/ suppliers/supplier-manual
403-8	Workers covered by an occupational health and safety management system	Sustainability at Bittium in 2022; Innovative and Developing People, p. 65	All Bittium employees are covered by the occupational health and safety management system.
403-9	Work-related injuries	Sustainability at Bittium in 2022; Innovative and Developing People, p. 65	In 2022, Bittium's Finnish companies didn't report safety and near-miss findings but reported three occupational accidents, none of which resulted in the incapacity for work or liability for compensation according to the Occupational Accidents and Occupational Diseases Act.
403-10	Work-related ill health	Sustainability at Bittium in 2022; Innovative and Developing People, p. 65	The sickness absence rate was 3% in 2022 (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
GRI 404: Trai	ning and Education		
404-1	Average hours of training per year per employee	Sustainability at Bittium in 2022; Innovative and Developing People, p. 64	Bittium reports the number of training days / person.
404-2	Programs for upgrading employee skills and transition assistance programs	Sustainability at Bittium in 2022; Innovative and Developing People, p. 64	
GRI 405: Dive	ersity and Equal Opportun	ity	
405-1	Diversity of governance bodies and employees	Corporate Governance Statement, p. 32; Diversity Principles of the Board of Directors, Sustainability at Bittium in 2022; Innovative and Developing People, p. 67	



# Report by the Board of Directors and Financial Statements 2022

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

#### Year 2022 in Short

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

- Net sales were EUR 82.5 million (EUR 86.9 million), representing a 5.1 percent decrease year-on-year.
- The share of product-based net sales was EUR 57.4 million (EUR 63.1 million), representing 69.6 percent of the net sales. The share of Medical Technologies products was EUR 22.6 million (EUR 27.8 million), and the share of Defense & Security products was EUR 34.8 million (EUR 35.3 million).
- The share of services-based net sales was EUR 25.1 million (EUR 23.8 million), representing 30.4 percent of the net sales. The share of Connectivity Solutions R&D services was EUR 15.2 million (EUR 15.5 million).
- EBITDA was EUR 11.0 million (EUR 13.7 million).
- Operating result was EUR 0.3 million (EUR 3.2 million).
- Result for the period was EUR 0.3 million, and earnings per share were EUR 0.007

- (result for the period EUR 3.3 million and earnings per share EUR 0.093).
  Cash flow from operating activities was
- EUR 8.0 million (EUR 8.3 million).

   Net cash flow was EUR -3.0 million
- (EUR -2.6 million).

  The order backled was ELID 28.1 million
- The order backlog was EUR 28.1 million (FUR 29.5 million)
- The Board of Directors of Bittium Corporation proposes to the Annual General
  Meeting of shareholders to be held on
  April 12, 2023, resolve to pay EUR 0.05
  per share as a dividend based on the
  adopted balance sheet for the financial
  period of January 1–December 31, 2022.

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

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

35.3 million). The decline in product-based net sales was caused by component availability difficulties.

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

EBITDA was EUR 11.0 million (EUR 13.7 million).

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

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



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

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

The equity ratio was 69.7 percent (72.4 percent).

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

# Financial Performance in January–December 2022

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

# Half Year Figures

GROUP'S NET SALES AND OPERATING RESULT, MEUR	2H/22	1H/22	2H/21	1H/21
Net sales	41.4	41.0	47.2	39.7
Operating profit (loss)	0.6	-0.2	3.9	-0.7
Result before taxes	0.2	-0.7	3.6	-1.0
Result for the period	0.9	-0.6	4.4	-1.0
DISTRIBUTION OF NET SALES BY PRODUCT AND SERVICES, MEUR AND $\%$	2H/22	1H/22	2H/21	1H/21
Product based net sales	30.2	27.2	35.2	27.9
	72.9%	66.3%	74.5%	70.3%
Services based net sales	11.2	13.8	12.0	11.8
	27.1%	33.7%	25.5%	29.7%
DISTRIBUTION OF PRODUCT-BASED NET SALES, MEUR AND %	2H/22	1H/22	2H/21	1H/21
Defense & Security products	18.9	15.9	20.8	14.5
	62.6%	58.5%	59.3%	51.8%
Medical Technologies products	11.3	11.3	14.3	13.5
	37.4%	41.5%	40.7%	48.2%
DISTRIBUTION OF SERVICES-BASED NET SALES, MEUR AND %	2H/22	1H/22	2H/21	1H/21
Connectivity Solutions R&D services	7.2	8.0	7.7	7.8
,	64.0%	57.8%	63.8%	66.6%
Other service-based net sales	4.0	5.8	4.4	3.9
	36.0%	42.2%	36.2%	33.4%
DISTRIBUTION OF NET SALES BY MARKET AREAS, MEUR AND %	2H/22	1H/22	2H/21	1H/21
Asia	0.7	0.5	0.3	0.3
	1.8%	1.3%	0.6%	0.6%
North and South America	12.9	10.4	14.9	14.4
	31.1%	25.4%	31.5%	36.4%
Europe	27.8	30.1	32.0	25.0
	67.1%	73.3%	67.9%	62.9%

# Quarterly Figures

GROUP'S NET SALES AND OPERATING RESULT, MEUR	4Q/22	3Q/22	2Q/22	1Q/22	4Q/21
Net sales	27.6	13.8	22.7	18.4	30.1
Operating profit (loss)	3.0	-2.4	0.8	-1.0	3.7
Result before taxes	2.8	-2.6	0.6	-1.2	3.5
Result for the period	3.5	-2.6	0.6	-1.2	4.3
DISTRIBUTION OF NET SALES BY PRODUCT AND SERVICES, MEUR AND %	4Q/22	3Q/22	2Q/22	1Q/22	4Q/21
Product based net sales	20.9	9.3	15.8	11.4	23.0
Troduct bacoa not caree	75.8%	67.3%	69.7%	62.0%	76.5%
Services based net sales	6.7	4.5	6.9	7.0	7.1
	24.2%	32.7%	30.3%	38.0%	23.5%
DISTRIBUTION OF PRODUCT-BASED					
NET SALES. MEUR AND %	4Q/22	3Q/22	2Q/22	1Q/22	4Q/21
Defense & Security products	15.8	3.1	8.2	7.8	15.5
	75.5%	33.6%	51.6%	68.2%	67.6%
Medical Technologies products	5.1	6.2	7.7	3.6	7.4
	24.5%	66.4%	48.4%	31.8%	32.4%
DISTRIBUTION OF SERVICES-BASED					
NET SALES, MEUR AND %	4Q/22	3Q/22	2Q/22	1Q/22	4Q/21
Connectivity Solutions R&D services	4.2	3.0	3.7	4.3	4.6
	62.4%	66.4%	54.6%	60.9%	64.8%
Other service-based net sales	2.5	1.5	3.1	2.7	2.5
	37.6%	33.6%	45.4%	39.1%	35.2%
DISTRIBUTION OF NET SALES					
BY MARKET AREAS, MEUR AND %	4Q/22	3Q/22	2Q/22	1Q/22	4Q/21
Asia	0.5	0.3	0.2	0.3	0.2
	1.8%	1.9%	0.9%	1.7%	0.6%
North and South America	7.6	5.3	6.6	3.8	8.8
	27.7%	38.1%	29.1%	20.8%	29.2%
Europe	19.5	8.3	15.9	14.2	21.1
	70.6%	60.0%	70.0%	77.4%	70.2%

#### Statement of Financial Position and Financing

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

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

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

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

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

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

Bittium has a EUR 20.0 million senior loan and a EUR 10.0 million committed overdraft credit facility agreement with Nordea Bank Finland Plc. The maturity date for the senior loan is May 24, 2024, and the credit limit agreement is valid until May 24, 2024. Bittium has EUR 10.0 million committed

overdraft credit facility agreement with OP Corporate Bank Plc valid until September 30, 2025. At the end of the review period, no limits from these facilities were in use.

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

#### Research and Development

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

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

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

R&D INVESTMENTS, (MEUR)	1-12/2022	1-12/2021
Total R&D investments	22.3	19.8
Capitalized R&D investments	-6.6	-7.0
Depreciations and impairment of R&D investments	5.9	5.5
Cost impact on income statement	21.5	18.3
R&D investments, % of net sales	27.0%	22.8%
CAPITALIZED R&D INVESTMENTS IN BALANCE SHEET, MEUR	1-12/2022	1-12/2021
Balance sheet value in the beginning of the period	48.1	46.6
Additions during the period	6.6	7.0
Depreciations and impairment of R&D investments	-5.9	-5.5
Balance sheet value at the end of the period	48.8	48.1

### Strategy Implementation in 2022

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

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

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

 The Medical Technologies business unit consists of three business areas, which are measuring and analyzing the electrical activity of the heart (ECG) (Cardiac), measuring and analyzing the electrical activity of the brain (EEG) (Neuro), and Home Sleep Apnea Testing (Sleep). In the coming years, alongside the product business, the company will invest in diversifying the software business and increasing the turnover it generates. In the Medical Technologies business, the focus will be on increasing the international customer base and market shares.

- · In the Defense & Security business unit, the company offers secure communication solutions for the authority, defense, and other professional user markets. The business consists of tactical communication solutions targeted to the defense market and high-security communication solutions targeted to the authorities. Over the past years, the company has made significant investments to expand its product portfolio. The products and systems are now internationally at a very competitive level in terms of coverage and technical features. In the next phase, the company will utilize the previously made product development investments and invest strongly in international sales and marketing. The company's goal is to significantly grow the international product business and achieve an internationally significant position as a provider of tactical communication and high-security communication solutions.
- In the Connectivity Solutions business unit, the company offers its customers product development services and wireless connectivity solutions for the development of new innovative products in a secure and developing wireless environment. In the coming years, the company will focus on growing its international customer base in the Telecom, Industrial IoT, and MedTech market segments.

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

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

### Market Environment and Business Development in January–December 2022

# Defense & Security Business Unit

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

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

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

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

Handheld and Vehicular radios for around 4.3 million euros.

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

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

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

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

family, meeting customers' need for a new generation field phone.

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

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

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

#### Medical Technologies Business Unit

The medical technology market has recovered from the uncertainty caused by the coronavirus pandemic. The importance of remote care and remote monitoring is still growing with the inadequacy of medical

care resources and cost pressures. Remote monitoring and remote diagnostics solutions bring relief to these problems, which will in the future support the development of sales of Bittium's medical remote diagnostics solutions.

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

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

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

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

The demand for Bittium Faros™ ECG measuring devices increased in the European market during the past year. A significant part of the product deliveries of the past year was still made to Preventice Solutions (a subsidiary of Boston Scientific Group), a customer offering remote monitoring services in the US ECG market. At the beginning of the year, Bittium and Preventice signed an agreement according to which Bittium will continue the supply contract

for BodyGuardian® MINI devices that monitor cardiac arrhythmias to Preventice. In addition, the cooperation in the development of new ECG technology tailored to the use of Preventice Solutions continues.

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

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

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

#### Connectivity Solutions Business Unit

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

The aim of the Connectivity Solutions business is to focus on growing the international customer base, especially in the Telecom, Industrial IoT, and MedTech market segments.

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

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

# Significant Events after the Reporting Period

There were no significant events after the reporting period.

#### Outlook for 2023

#### Market Outlook 2023

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

About 70 percent of Bittium's net sales in total are generated from products and re-

lated systems, and the uncertainties related to product deliveries cause significant uncertainty for the accumulation of Bittium's net sales and operating result during the year 2023.

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

www.bittium.com.

#### Financial Outlook 2023

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

#### Long-term Financial Targets

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

#### Market Outlook

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

The global coronavirus pandemic and the worldwide disruption in the availability of electronic components that followed the pandemic have had a slowing effect on the development of the company's busi-

ness and sales in 2021 and 2022. The market is slowly recovering and the company believes that the component shortage will ease during 2023.

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

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

#### Defense, Public Safety, and Information Security Markets

- In the defense market's tactical communications sector, the governments' defense forces and other authorities need networks that troops, who are more and more constantly on the move, can use and transfer growing amounts of data securely. This creates demand for Bittium Tactical Wireless IP Network™ (TAC WIN) broadband network, Bittium Tough SDR™ handheld and vehicular radios, and for other Bittium's IP-based (Internet Protocol) tactical communication solutions that fulfill the needs of data transfer of moving troops and individual soldiers.
- Russia's war of aggression against Ukraine has also increased the defense budgets of various countries and has had a favorable effect on demand in the defense market. In the first phase, the increased defense appropriations have been allocated mainly to consumables. In the future, the increased budgets will also be aimed at the modernization and development projects of the defense forces of different countries, which may have a positive effect on the demand for Bittium's tactical communication solutions.
- Finland's possible NATO membership will have a positive effect on the demand for Bittium's defense and official products.
- Bittium continues its efforts to export tactical data transfer products to international markets and aims to get new international customers during 2023. The development of sales is moderate due to the long sales cycles of the defense industry.

- The use of LTE technology, smartphones, and applications continues to increase in special verticals, such as public safety, creating demand for Bittium Tough Mobile™ secure LTE smartphone and other customized special terminals based on Bittium's own product platform. The awareness of mobile security risks is growing, and the interest in secure mobile devices is increasing. The sales of secure terminal products are expected to develop moderately according to the nature of public safety markets.
- The global component shortage affects the availability of various components used in products, which affects the company's ability to deliver products to its customers on the agreed schedule. The component shortage is expected to ease within 2023.

# Telecommunication and Digitalization

- · In mobile telecommunications, the implementation of 5G is accelerating. Investments in developing new features continue and the importance of software development in the 5G network development expands. This creates demand for Bittium's R&D services. There is a wide range of frequencies allocated for the 5G technology, thus creating the need to develop multiple products to cover the market and creating demand for R&D services for the development of product variants. Different needs for satellite communication solutions increase the demand for Bittium's product development knowhow with the addition of new players to the traditional supplier network. The demand for Bittium's R&D services is also increased by the need to develop new devices utilizing 5G technology.
- As digitalization evolves, secure IoT (Internet of Things) has become a significant development area in almost every industry. The increasing need for companies to digitalize their operations, collect data wirelessly, and transfer it to the internet and cloud services generate a need for Bittium's services and customized solutions. To this end, the market needs secure devices, for both demanding industrial and leisure applications, which collect

- information from the sensors used by the device and create a reliable wireless connection to the Internet and cloud services. The deployment of 5G technology is expanding and the number of digitalized devices increases continuously. The devices will also feature new and more advanced features that will create demand for design services. Therefore, the integration of different systems and technologies plays an important role in enabling complete digitalization services. There are several learning systems and devices under development that use different kinds of artificial intelligence (AI) technologies to ease and speed up the processing of large data amounts.
- Technological development and innovations enable the development of new devices and applications for monitoring health and well-being, which increases the demand for Bittium's product development service expertise. Bittium's experience in medical devices, sports applications, and wearable devices, combined with wireless connectivity expertise, enables competitiveness also in providing design services for health, well-being, and sports equipment.
- Labor competition for both equipment design and software experts is fierce and it is expected to continue in the market in 2023 as well.

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

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

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

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

# Risks and Uncertainties

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

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

ply and demand-related risks and increased uncertainty.

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

#### Market Risks

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

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

A significant part of Bittium's net sales accumulates from selling products and R&D services to defense and other authorities, as well as companies delivering products to them. Deviation in anticipated business development with such customer concentrations may translate as a significant deviation in Bittium's outlook, both in terms of net sales and operating results, during the ongoing financial period and thereafter.

Bittium seeks to expand its customer base in the longer term and reduce dependence on individual companies, and hence the company would thereby be mainly affected by the general business climate in the industries of the companies belonging to Bittium's customer base instead of the development of individual customer relationships. The more specific market outlook has been presented in this report in the "Market outlook" section.

#### **Business Related Risks**

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

Bittium's product delivery business model faces such risks as high dependency on actual product volumes, timing risks, and potential delays in the markets. The above-mentioned risks may manifest themselves as lower amounts of products deliv-

ered or higher costs of production, and ultimately, as lower profit. Bringing Bittium's products to international defense and other authorities' markets may take longer than anticipated because the projects are typically long, and the purchasing programs are prepared in the lead of national governments and within the available financing. Once a supplier has been selected, product deliveries are typically executed over several years.

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

#### Financing Risks

Global economic uncertainty may lead to payment delays, increase the risk of credit losses, and weaken the availability and terms of financing. To fund its operations, Bittium relies mainly on income from its operative business and may from time to time seek additional financing from selected financial institutions. Bittium has a

EUR 20.0 million senior loan and EUR 10.0 million committed overdraft credit facility agreement with Nordea Bank Plc. The maturity date for the senior loan is May 24, 2024, and the credit limit agreement is valid until May 24, 2024. Bittium has EUR 10.0 million committed overdraft credit facility agreement with OP Corporate Bank Plc valid until September 30, 2025.

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

### Statement of Non-Financial Information

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

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

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

Sustainability is part of Bittium's organizational culture and way of working. The company identifies and manages liability-

related risks as part of the company's risk management, which emphasizes the role of the company's management group and the Board of Directors in implementing measures in daily operations.

#### **Key Operating Principles**

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

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

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

#### **Environmental Matters**

Responsibility for the environment, climate change mitigation and resource-efficient solutions are an important part of Bittium's operations and development. In accordance with its environmental policy, Bittium is committed to minimizing the en-

vironmental impact in the production, use and disposal of the products it designs. That is why Bittium's products are designed to be long-lasting, repairable, and recyclable. Since Bittium's business is mainly focused on the beginning of the products' life cycle, its environmental impact is very small. The biggest environmental impact is caused by recycling the product.

In the new responsibility program, Bittium focuses on monitoring three environmental indicators that measure the environmental effects of operations: the development of the carbon dioxide equivalent ( $\rm CO_2$ 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 204.0 tCO $_2$  in 2022 (102.9 tCO $_2$  in 2021) and the Scope 2 emissions (heating and electricity) were 563.5 tCO $_2$ e (615.7 tCO $_2$  in 2021). Bittium's total energy consumption decreased by 8.6% and was 3,827 MWh (4,187 MWh in 2021). Regarding the office space in Oulu, about 5 percent of the energy used was produced with solar energy on an annual basis (goal >5 percent). The share of renewable energy in the energy used in Finnish offices was more than 35 percent (35% in 2021).

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

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

#### Social Issues and Employees

#### Personnel

Bittium does not allow discrimination or unequal treatment based on gender, age, origin, religion, or belief, opinion, sexual orientation, disability, or any other reason related

to the person. The realization of equality is examined, for example, with the help of personnel surveys and research from the perspective of salary, career development and recruitment. The central measure of the annual personnel survey was the personnel engagement index, the result of which was 3.7 (scale 1–5), which reached the set goal. Personnel training is central to Bittium from the perspectives of both maintaining expertise and strengthening specialized expertise

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

#### Respect for Human Rights and Fighting Corruption and Bribery

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

Because of Bittium's market and business areas, corruption is one of the key risks related to social responsibility. Bittium does not accept any form of bribery or corruption in its own operations or those of its partners. The company has internal and external guidelines drawn up to prevent anti-corruption activities, and an electronic self-study module on anti-corruption activities has

been implemented for new employees. The company uses a monitoring tool to identify corruption or other ambiguities of partners, and the company's stakeholders have a channel where they can anonymously report violations of anti-corruption rules. In 2022, the company did not become aware of any suspected corruption.

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

### EU Taxonomy Disclosure

#### The EU Taxonomy

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

# Bittium's approach to Taxonomy alignment and Taxonomy eligibility

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

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

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

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

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

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

# Accounting policy for financial KPI

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

#### Turnover

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

#### **Capital Expenditure**

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

#### **Operation Expenditure**

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

Bittium continues to develop taxonomy assessment and reporting practice in 2023. It

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

#### Sales Revenue

	Substantial Contribution Criteria DNSH Criteria																	
Economic activities	Codes	Abosolute OpEx	% Proportion of turnover	% 1. Climate change mitigation	% 2. Climate change adaptation	% 3. Water and marine resources	% 4. Circular economy	% 5. Pollution	% 6. Biodiversity and ecosystems	Solimate change mitigation	≤ 2. Climate change adaptation	玄. Water and marine resources	≤ 4. Circular economy	会 5. Pollution	≤ 6. Biodiversity and ecosystems	S Compliance with minimum safeguards	% Taxonomy-aligned sales revenue	т Category (enabling/transitional)
A. TAXONOMY- ELIGIBLE ACTIVITIES																		
A.1 Environmentally sustainable activities (taxonomy-aligned)																		
Not found		0.00	0.0															
Turnover of environ-																		
mentally sustainable																		
activities (taxonomy-																		
aligned) (A.1)		0.00	0.0															
A.2 Taxonomy-eligible but not environmentally																		
sustainable activities (not Taxonomy-aligned activities)																		
8.1 Data processing,																		
hosting and related activities	8.1	0.07	0.00															
8.2 Computer program-	0.1	0.07	0.00															
ming, consultancy and related activities	8.2	25.10	30.00															
Turnover of Taxonomy-	0.2	200	00.00															
eligible but not environ- mentally sustainable																		
activities (not Taxonmy-																		
aligned activities)		25.17																
Total (A1 + A2)		25.17	30.0															
B. TAXONOMY- NON-ELIGIBLE ACTIVITIES																		
Turnover of Taxonomy-																		
non-eligible activities		57.42	70															
Total (A + B)		82.50	100															

### Capital Expenditure

							antial on Cri				D	NSH (	Criteri	a				
Economic activities	Codes	Abosolute OpEx	% Proportion of turnover	% 1. Climate change mitigation	% 2. Climate change adaptation	% 3. Water and marine resources	% 4. Circular economy	% 5. Pollution	% 6. Biodiversity and ecosystems	≤ 1. Climate change mitigation	≤ 2. Climate change adaptation	≤ 3. Water and marine resources	😤 4. Circular economy	Ś 5. Pollution	≤ 6. Biodiversity and ecosystems	S Compliance with minimum safeguards	% Taxonomy-aligned sales revenue	표 Category (enabling/transitional)
A. TAXONOMY- ELIGIBLE ACTIVITIES																		
A.1 Environmentally sustainable activities (taxonomy-aligned)																		
Not found		0.00	0.0															
CapEx of environ-																		
mentally sustainable																		
activities (taxonomy-																		
aligned) (A.1)		0.00	0.0															
A.2 Taxonomy-eligible																		
but not environmentally sustainable activities (not Taxonomy-aligned activities)																		
8.1 Data processing,																		
hosting and related																		
activities	8.1	0.00	0.00															
8.2 Computer program- ming, consultancy and related activities	8.2	0.20	2.00															
CapEx of Taxonomy- eligible but not environ- mentally sustainable activities (not Taxonomy																		
-aligned activities)		0.20	0.0															
Total (A1 + A2)		0.20																
B. TAXONOMY- NON-ELIGIBLE ACTIVITIES																		
CapEx of Taxonomy-																		
non-eligible activities		9.30	98															
Total (A + B)		9.50	100															

### Operational Expenditure

						Subst					D	NSH (	Criteri	a				
Economic activities	Codes	Abosolute OpEx	% Proportion of turnover	% 1. Climate change mitigation	% 2. Climate change adaptation	% 3. Water and marine resources	% 4. Circular economy	% 5. Pollution	% 6. Biodiversity and ecosystems	子 1. Climate change mitigation	~ 2. Climate change adaptation	ろ 3. Water and marine resources		ろ 5. Pollution	姜 6. Biodiversity and ecosystems	S Compliance with minimum safeguards	% Taxonomy-aligned sales revenue	П Category (enabling/transitional)
A. TAXONOMY- ELIGIBLE ACTIVITIES																		
A.1 Environmentally sustainable activities (taxonomy-aligned)																		
Not found		0.00	0.0															
OpEx of environmentally sustainable activities (taxonomy-aligned) (A.1)		0.00	0.0															
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																		
8.1 Data processing, hosting and related activities	8.1	0.00	0.00															
8.2 Computer programming, consultancy and related activities	8.2		30															
OpEx of Taxonomy- eligible but not environ- mentally sustainable activities (not Taxonmy- aligned activities)		0.00	0.0															
Total (A1 + A2)		0.00	0.0															
B. TAXONOMY- NON-ELIGIBLE ACTIVITIES																		
OpEx of Taxonomy- non-eligible activities		0.22	70															
Total (A + B)		0.31	100															

### Personnel

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

### Changes in the Company's Management

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

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

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

On October 17, 2022, Mr. Hannu Huttunen, the CEO of Bittium Corporation announced that he will leave his position as a CEO of the Company. The Board of Directors of Bittium Corporation initiated a search for a new CEO with the goal of having a new CEO selected by the beginning of next year.

Mr. Hannu Huttunen will continue in his position until then with the full support of the Company's Board of Directors. It has been agreed that Mr. Huttunen will continue as an Advisor to the Company's Board of Directors until the end of 2023.

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

### Incentive Systems

### Employee Profit-Sharing Plan

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

#### Variable Pay

The variable pay is paid based on the achievement of goals. In 2022, earning period for the variable pay was the calendar year. The targets are determined separately for each earning period. The setting of targets and the review of their achievement is decided on a one-over-one basis. The criteria for the short-term merit pay are the financial and strategic targets of the Company. In addition, part of the targets can be personal targets, which may vary between duties. The scope of the variable

pay system includes company executives. In addition, those working in sales positions have separate reward systems related to sales goals.

### Management Share-Based Incentive Plan

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

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

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

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

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

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

The number of own shares to be repurchased shall not exceed 3,500,000 shares,

which corresponds to approximately 9.80 percent of all of the shares in the company as of the date of the General Meeting. Only the unrestricted equity of the company can be used to repurchase its shares based on authorization. Own shares can be repurchased at a price formed in public trading on the date of the repurchase or otherwise at a price formed on the market. The Board of Directors decides how their shares will be repurchased. Own shares can be repurchased using, inter alia, derivatives. Own shares can be repurchased otherwise than in proportion to the shareholdings of the shareholders (directed repurchase).

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

The authorization is effective until June 30, 2023.

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

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

The number of shares to be issued shall not exceed 3,500,000 shares, which corresponds to approximately 9.80 percent of all of the shares in the company as of the date of the General Meeting. The Board of Directors decides on all the conditions of the issuance of shares and special rights

entitling to shares. The authorization concerns both the issuance of new shares as well as the transfer of treasury shares. The issuance of shares and special rights entitling to shares may be carried out in deviation from the shareholders' pre-emptive rights (directed issue).

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

The authorization is effective until June 30, 2023.

### Shares and Shareholders

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

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

#### Market Values of Shares

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

### Shareholders

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

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

# The Board, Board Committees and the Auditor

### **Flagging Notifications**

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

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

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

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

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

### Corporate Governance Statement

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

### Dividend from 2021

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

### Consolidated Statement of Comprehensive Income

Continuing operations, 1000 EUR	Notes	Jan. 1– Dec. 31, 2022	Jan. 1– Dec. 31, 2021
	4 7	22.44	01.010
NET SALES Other appreting income	1, 3	82,464	86,868
Other operating income	4	2,740	2,594
Change in work in progress and finished goods		/0/	F 7.0
Work performed by the undertaking for its own purpose and capitalized  Raw materials		496	530
Personnel expenses	7	-20,227 -39,463	-23,311
Depreciation Depreciation		· · · · · · · · · · · · · · · · · · ·	-38,992
- '	6	-10,699	-10,452
Other operating expenses	5	-14,784	-13,923
Share of results of the associated companies	15	-185	-90
OPERATING PROFIT		342	3,223
Financial income and expenses	9	-761	-688
PROFIT BEFORE TAX		-419	2,535
Income tax	10	672	790
PROFIT FOR THE YEAR FROM CONTINUING OPERATIONS		253	3,324
Profit for the year from discontinued operations	2		
PROFIT FOR THE YEAR		253	3,324
Other comprehensive income:			
Items that will not be reclassified to statement of income			
Re-measurement gains (losses) on defined benefit plans			
Income tax effect			
Items that may be reclassified subsequently to the statement of income			
Exchange differences in translating foreign operations		212	231
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		466	3,556
Profit for the year attributable to			
Equity holders of the parent		253	3,324
Total		253	3,324
Total comprehensive income for the year attributable to			
Equity holders of the parent		466	3,556
Total		466	3,556
Earnings per share for profit attributable to the shareholders of the parent company	11		
Earnings per share from continuing operations, EUR			
Basic earnings per share		0.007	0.093
Diluted earnings per share		0.007	0.093
Earnings per share from discontinued operations, EUR			
Basic earnings per share			
Diluted earnings per share			
Earnings per share from continuing and discontinued operations, EUR			
Basic earnings per share		0.007	0.093
Diluted earnings per share		0.007	0.093
Average number of shares, 1000 pcs		35,702	35,700
Average number of shares, diluted, 1000 pcs		35,702	35,700

### Consolidated Statement of Financial Position

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

### Consolidated Statement of Cash Flows

1000 EUR Notes	Jan. 1- Dec. 31, 2022	Jan. 1- Dec. 31, 2021
Cash flow from operating activities	0	
Profit for the year from continuing operations	253	3,324
Profit for the year from discontinued operations		
Adjustments		
Effects of non-cash business activities 29	,	12,018
Finance costs 9		760
Finance income 9		-71
Income tax 10	-672	-790
Change in net working capital		
Change in short-term receivables 19	, , , , ,	-13,063
Change in inventories 18	, -	1,905
Change in interest-free short-term liabilities 27	3,295	4,928
Interest paid on operating activities	-850	-753
Interest and dividends received from operating activities	90	71
Income taxes paid	-38	-51
Net cash from operating activities	8,021	8,278
Cash flow from investing activities		
Purchase of property, plant, and equipment 12	-955	-954
Purchase of intangible assets	-7,092	-7,457
Net cash from investing activities	-8,047	-8,410
Cash flows from financing activities		
Payment of finance lease liabilities 25		
Dividend paid and capital repayment 25, 26		-1,375
Dividend paid and capital repayment	-1,428	-1,110
Purchases of own shares	-144	.,,
Net cash from financing activities	-2,997	-2,486
Net change in cash and cash equivalents 2'	-3,023	-2,618
Cash and cash equivalents on 1 January	22,039	24,657
Change in fair value of investments	22,007	2 1,007
Cash and cash equivalents at the end of the year	19,016	22,039

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

### Consolidated Statement of Changes in Equity

### Equity attributable to equity holders of the parent

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

### **Corporate Information**

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

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

# Accounting Principles for the Consolidated Accounts

### Basis of Preparation

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

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

### Consolidation Principles

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

### Subsidiaries

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

### Associated Companies

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

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

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

### Elimination of Intra-Group Transactions

Intra-Group share ownership has been eliminated by means of the purchase method. Acquired subsidiaries are included in the consolidated financial statements from the time when the Group has obtained control and divested subsidiaries up to the time when control ceases. The excess of the acquisition cost of the subsidiary shares over the fair value of the net assets acquired is

allocated partly to the identifiable assets and liabilities. Any excess is recorded as goodwill. For business combinations that occurred before the implementation of IFRS, in 2004, the carrying amount of the goodwill has been treated according to the Finnish GAAP in accordance with the exemption under IFRS 1. According to IFRS goodwill is not amortized but tested annually for impairment.

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

### Foreign Currency Transactions

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

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

Income statements and cash flows of subsidiaries, whose functional and reporting currency is not the euro, are translated into euros at the average exchange rates during the financial period. Their balance sheets are translated at the exchange rates prevailing at the balance sheet date. Translating the profit for the period using different rates in the income statement and the balance sheet leads to a translation difference that is recorded in equity. The translation

differences arising from the elimination of the cost of foreign subsidiaries are recorded in equity. When a subsidiary is sold, the cumulative translation differences are entered into the income statement as part of the capital gain or loss.

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

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

### Property, Plant and Equipment

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

Assets are depreciated using the straightline or reducing balance method over their

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

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

### **Research and Development Expenditure**

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

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

### Other Intangible Assets

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

#### Inventories

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

### **Borrowing Costs**

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

### **Government Grants**

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

### Leases

According to the IFRS 16 Leases standard, in principle all lease contracts of the Group are recognized as assets and liabilities in Group's Balance Sheet. When the Group is a lessee, lease liabilities are recognized at

the present value of the future lease payments at the contact date which the leased asset is available for use by the group. Lease payments are discounted by using lessee's incremental borrowing rate. Corresponding asset to the lease liability is recognized on the historical cost basis. According to the historical cost basis model, depreciation and amortization costs are deducted from the initially recognized right-of-use asset. When adjustments to lease payments take effect, the lease liability is reassessed and adjusted against the right-of-use asset.

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

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

### Impairment of Assets

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

alent with the expected cash flows generated by the asset.

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

### **Employee Benefits**

#### **Pension Liabilities**

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

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

#### **Share-Based Payment**

The Group has applied IFRS 2 Share-Based Payment standard. The Group has incentive plans in which part of the remuneration for the Board of Directors is paid in shares of Bittium. The managing directors of the Group also have an incentive plan in which the fair value of equity-settled share-

based payments granted are recognized as an employee expense with a corresponding increase in equity. The fair value of cash-settled share-based payments is valued at each reporting period closing date and the changes in fair value of liability are recognized as an expense when incurred. The fair value is measured at the grant date and spread over the vesting period during which the employees become unconditionally entitled to the awards. Share-based incentives are measured at fair value at the time they are granted and entered as an expense in the income statement when the right is granted.

#### **Provisions**

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

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

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

#### **Taxes**

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

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

### Revenue Recognition

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

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

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

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

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

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

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

### Assets Held for Sale and Discontinued Operations

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

### Financial Assets, Financial Liabilities and Derivative Contracts

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

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

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

The financial assets are written off when:

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

### The Impairment of Financial Assets

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

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

### Cash and Short-Term Deposits

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

### Financial Liabilities

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

Financial liabilities are not reclassified after the initial recognition. Non-current financial liabilities are due after one year whereas current financial liabilities are due within one year. Financial liabilities are disposed of as the liability related to the contract is declared void, canceled, or due. As the terms of the financial liability are substantially changed or when a new contract with the existing creditor is made, the change is entered as disposal of the old liability and as an entry of a new liability. The changes in the balance sheet values are entered through profit and loss.

# Significant Accounting Estimates and Judgments

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

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

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

### The Application of New and Revised IFRS Regulations

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

#### 1. OPERATING SEGMENTS

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

The wireless business is focused on creating reliable and secure communication and connectivity solutions, as well as on developing healthcare techno-

logy solutions for biosignal measuring. For its customers, Bittium offers innovative products and solutions based on its product platforms and R&D services. Bittium also offers high-quality information security solutions for mobile devices and portable computers. For customers in biosignal measuring in the areas of cardiology, neurology, rehabilitation, occupational health, and sports medicine, Bittium offers healthcare technology products and services.

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

### Wireless

### Geographical areas

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

### Geographical areas Jan. 1-Dec. 31, 2022

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

### Geographical areas Jan. 1-Dec. 31, 2021

Odn. 1 Dec. 01, 2021						_
		Other				Group
1000 EUR	Finland	Europe	Americas	Asia	Eliminations	total
Net sales						
Sales to external customers	41,391	15,615	29,334	528		86,868
Non-current assets	78,924		208			79,133
Total non-current assets *)	78,924		208			79,133
*) does not include deferred tax assets						
Capital expenditure						
Tangible assets	-1,879		-41			-1,919
Intangible assets	989					989
Investments	-224					-224
Goodwill			16			16
Non-current receivables	-125					-125

### Information of primary customers

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

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

### 2. DISCONTINUED OPERATIONS

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

#### 3. NET SALES

1000 EUR	2022	2021
Services	25,054	23,815
Products	57,410	63,053
Other		
Total	82,464	86,868
The services include project sales with fixed prices and hourly rates.		
The product sales include all the sales affected by products:		
the sales of products, product maintenance, extended warranties, and licence sales.		
Construction contracts		
The contract revenue is recognized in the income statement in proportion to the stage of completion		
of the contract. The stage of completion is defined as the ratio of costs incurred to total estimated		
costs. The turnover of construction contracts is, depending on the contract elements, recognized		
over time or at a point in time. The principles of revenue recognition based on IFRS 15 are presented		
in detail in the accounting principles of the consolidated financial statements.		
Income recognized from construction contracts	9,188	9,245
Net sales other	73,276	77,623
Total	82,464	86,868
Income recognized over time based on the stage of completion of long-term construction contracts	9,188	9,245
Revenue recognized from long-term construction contracts in progress amounted to	4,954	7,785
Advances received from long-term construction contracts recognized in the balance sheet amounted to	772	435
Receivables recognized from long-term construction contracts amounted to	1,382	1,421

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

### 4. OTHER OPERATING INCOME

1000 EUR	2022	2021
Government grants	2,635	2,526
Other income	105	67
Total	2,740	2,594
5. OTHER OPERATING EXPENSES		
External services	1,530	1,647
Voluntary staff expenses	1,190	963
Premises expenses	1,094	965
Travel expenses	1,048	422
IT expenses	3,096	3,287
Other expenses	6,826	6,640
Total	14,784	13,923
Expense relating to short-term leases under IFRS 16	157	150
More information about Leases in Note 12.		
Auditor's charges		
Ernst & Young		
Auditing	67	58
Tax advice	1	0
Other services	4	2
Total	72	60
Others		
Auditing	24	21
Tax advice	7	8
Other services		
Total	30	29

1000 EUR	2022	2021
6. DEPRECIATIONS AND IMPAIRMENTS		
Depreciations		
Intangible assets		
Capitalized development expenditure	5,897	5,503
Intangible rights	430	351
Customer relations and technology	173	234
Other intangible assets	289	352
Tangible assets		
Buildings and constructions	753	735
Machinery and equipment	3,157	3,277
Total	10,699	10,452
Depreciation on property, plant, and equipment acquired by leases		
Buildings and constructures	358	395
Machinery and equipment	1,063	1,033
7. EMPLOYEE BENEFIT EXPENSES AND NUMBER OF PERSONNEL		
Number of personnel		
Average number of personnel during the fiscal period	//1	
Continuing operations	641	664
Personnel expenses 1000 EUR		
Personnel expenses		
Managing Director	353	320
Board of Directors *	176	169
Other salaries and wages	36,650	37,146
Salaries capitalized to development expenses	-5,399	-5,776
Total	31,780	31,860
Denoting assessment and fined contribution along	/ /00	5.854
Pension expenses, defined contribution plans	6,422	
Other personnel expenses		-,
Total	1,261 <b>39,463</b>	1,278 <b>38,992</b>

<sup>\*</sup>Including the share-based incentives. Further information in the Note 32.

2022

2021

IOOU EUR	2022	2021
8. RESEARCH AND DEVELOPMENT EXPENSES		
The research and development expenses total	22,287	19,848
Capitalized to the balance sheet	-6,647	-7,009
Recognition as an asset	5,897	5,503
The expensed research and development expenses recognized in the income statement amounted to	21,537	18,342
9. FINANCIAL EXPENSES (NET)		
Interest expenses	-390	-352
Interest income	17	
Dividend income	0	0
Exchange gains and losses	-309	-343
Change of financial assets and liabilities at fair value through profit or loss		
Other financial expenses	-152	-65
Other financial income	72	71
Total	-761	-688
	-22	-21
Interest expenses on lease liabilities under IFRS 16  More information about Leases in Note 12.	-22	
More information about Leases in Note 12.  10. INCOME TAXES  Income taxes, current year	-164	-1
More information about Leases in Note 12.  10. INCOME TAXES		-1 -8
More information about Leases in Note 12.  10. INCOME TAXES  Income taxes, current year	-164	
More information about Leases in Note 12.  10. INCOME TAXES  Income taxes, current year Other taxes	-164 -8	-8
More information about Leases in Note 12.  10. INCOME TAXES  Income taxes, current year Other taxes Income taxes, previous years	-164 -8 -18	-8 -21
More information about Leases in Note 12.  10. INCOME TAXES  Income taxes, current year Other taxes Income taxes, previous years Deferred taxes	-164 -8 -18 862	-8 -21 819
More information about Leases in Note 12.  10. INCOME TAXES  Income taxes, current year Other taxes Income taxes, previous years Deferred taxes Total  A reconciliation between the effective tax rate and domestic tax rate (20.0 percent) of the Group:	-164 -8 -18 862	-8 -21 819
More information about Leases in Note 12.  10. INCOME TAXES  Income taxes, current year  Other taxes Income taxes, previous years  Deferred taxes  Total	-164 -8 -18 862 <b>672</b>	-8 -21 819 <b>790</b>
More information about Leases in Note 12.  10. INCOME TAXES  Income taxes, current year Other taxes Income taxes, previous years Deferred taxes Total  A reconciliation between the effective tax rate and domestic tax rate (20.0 percent) of the Group:  Profit before taxes  Tax at the domestic tax rate	-164 -8 -18 862 <b>672</b>	-8 -21 819 <b>790</b> <b>2,535</b>
More information about Leases in Note 12.  10. INCOME TAXES  Income taxes, current year Other taxes Income taxes, previous years Deferred taxes Total  A reconciliation between the effective tax rate and domestic tax rate (20.0 percent) of the Group:  Profit before taxes  Tax at the domestic tax rate Effect of tax rates of foreign subsidiaries	-164 -8 -18 862 <b>672</b>	-8 -21 819 <b>790</b> <b>2,535</b> -594
More information about Leases in Note 12.  10. INCOME TAXES  Income taxes, current year Other taxes Income taxes, previous years Deferred taxes Total  A reconciliation between the effective tax rate and domestic tax rate (20.0 percent) of the Group:  Profit before taxes  Tax at the domestic tax rate Effect of tax rates of foreign subsidiaries Taxes for prior years	-164 -8 -18 862 <b>672</b> -419	-8 -21 819 <b>790</b> <b>2,535</b> -594 -8
More information about Leases in Note 12.  10. INCOME TAXES  Income taxes, current year Other taxes Income taxes, previous years Deferred taxes Total  A reconciliation between the effective tax rate and domestic tax rate (20.0 percent) of the Group:  Profit before taxes  Tax at the domestic tax rate Effect of tax rates of foreign subsidiaries Taxes for prior years Tax free income	-164 -8 -18 862 672 -419 198 -6 -18	-8 -21 819 <b>790</b> <b>2,535</b> -594 -8 -21 262
More information about Leases in Note 12.  10. INCOME TAXES  Income taxes, current year Other taxes Income taxes, previous years Deferred taxes Total  A reconciliation between the effective tax rate and domestic tax rate (20.0 percent) of the Group:  Profit before taxes  Tax at the domestic tax rate Effect of tax rates of foreign subsidiaries Taxes for prior years Tax free income Non-deductible expenses	-164 -8 -18 862 <b>672</b> -419 198 -6 -18 190	-8 -21 819 <b>790</b> <b>2,535</b> -594 -8 -21
More information about Leases in Note 12.  10. INCOME TAXES  Income taxes, current year Other taxes Income taxes, previous years Deferred taxes Total  A reconciliation between the effective tax rate and domestic tax rate (20.0 percent) of the Group:  Profit before taxes  Tax at the domestic tax rate Effect of tax rates of foreign subsidiaries Taxes for prior years Tax free income Non-deductible expenses Utilization of deferred tax assets from previous years	-164 -8 -18 862 672 -419 -198 -6 -18 190 -1,026	-8 -21 819 <b>790</b> <b>2,535</b> -594 -8 -21 262 -541
More information about Leases in Note 12.  10. INCOME TAXES  Income taxes, current year Other taxes Income taxes, previous years Deferred taxes Total  A reconciliation between the effective tax rate and domestic tax rate (20.0 percent) of the Group:  Profit before taxes  Tax at the domestic tax rate Effect of tax rates of foreign subsidiaries Taxes for prior years Tax free income Non-deductible expenses Utilization of deferred tax assets from previous years Reassessment of deferred tax assets	-164 -8 -18 862 672  -419  198 -6 -18 190 -1,026 529	-8 -21 819 <b>790</b> <b>2,535</b> -594 -8 -21 262 -541 957
More information about Leases in Note 12.  10. INCOME TAXES  Income taxes, current year  Other taxes Income taxes, previous years Deferred taxes  Total  A reconciliation between the effective tax rate and domestic tax rate (20.0 percent) of the Group:  Profit before taxes	-164 -8 -18 862 672  -419  198 -6 -18 190 -1,026 529	-8 -21 819 <b>790</b> <b>2,535</b> -594 -8 -21 262 -541 957

1000 EUR

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

### 12. PROPERTY, PLANT, AND EQUIPMENT

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

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
Land and water		
Acquisition cost Jan. 1	1,091	1,091
Additions during the period		<u> </u>
Acquisition cost at the end of the period	1,091	1,091
Carrying amount at the end of the period	1,091	1,091
Buildings and constructures		
Acquisition cost Jan. 1	19,450	19,436
Translation differences	23	11
Additions during the period	697	2
Disposals during the period		
Acquisition of business unit		
Transfer to assets		
Acquisition cost at the end of the period	20,170	19,450
Accumulated depreciation Jan. 1	-5,840	-5,094
Translation differences	-23	-10
Depreciation for the period	-753	-735
Depreciations on disposals		
Machinery and equipment Acquisition cost Jan. 1	62,297	60,197
	62,297	60,197
Translation differences	-8	-18
Additions during the period	2,010	2,117
Acquisition of business unit		
Disposals during the period	-11	
Transfer to assets		
Acquisition cost at the end of the period	64,288	
Accumulated depreciation Jan. 1	-56,195	
Translation differences		
Depreciation for the period	8	-52,908 16
	-3,170	-52,908 16
·	-3,170	-52,908 16 -3,303
·		-52,908 16 -3,303
Other tangible assets	-3,170 <b>4,931</b>	-52,908 16 -3,303 <b>6,102</b>
Carrying amount at the end of the period  Other tangible assets  Acquisition cost Jan. 1	-3,170	-52,908 16 -3,303 <b>6,102</b>
Other tangible assets Acquisition cost Jan. 1 Additions during the period	-3,170 <b>4,931</b>	-52,908 16 -3,303 <b>6,102</b>
Other tangible assets Acquisition cost Jan. 1 Additions during the period Disposals during the period	-3,170 <b>4,931</b> 88	-52,908 16 -3,303 <b>6,102</b>
Carrying amount at the end of the period  Other tangible assets  Acquisition cost Jan. 1  Additions during the period  Disposals during the period  Acquisition cost at the end of the period	-3,170 <b>4,931</b>	-52,908 16 -3,303 <b>6,102</b>
Carrying amount at the end of the period  Other tangible assets  Acquisition cost Jan. 1  Additions during the period  Disposals during the period  Acquisition cost at the end of the period  Translation differences	-3,170 <b>4,931</b> 88	-52,908 16 -3,303 <b>6,102</b>
Carrying amount at the end of the period  Other tangible assets  Acquisition cost Jan. 1  Additions during the period  Disposals during the period  Acquisition cost at the end of the period  Translation differences  Accumulated depreciation Jan. 1	-3,170 <b>4,931</b> 88	62,297 -52,908 16 -3,303 6,102 88
Carrying amount at the end of the period  Other tangible assets  Acquisition cost Jan. 1  Additions during the period  Disposals during the period	-3,170 <b>4,931</b> 88	-52,908 16 -3,303 <b>6,102</b>

	Dec. 31,	Dec. 31,
1000 EUR	2022	2021
Property, plant, and equipment total		
Acquisition cost Jan.1	82,925	80,812
Translation differences	15	-7
Additions during the period	2,707	2,120
Acquisition of business unit	0	C
Disposals during the period	-11	0
Transfer to assets	0	0
Acquisition cost at the end of the period	85,637	82,925
Accumulated depreciation Jan. 1	-62,035	-58,002
Translation differences	-15	6
Depreciation for the period	-3,923	-4,038
Depreciations on disposals	0	0
Carrying amount at the end of the period	19,664	20,891
Leases		
The Group had the following amounts of property,		
plant and equipment acquired by finance leases:		
Machinery and equipment		
Acquisition cost	11,883	10,971
Accumulated depreciation	-10,419	-9,356
Carrying amount at the end of the period	1,464	1,615
Buildings and constructures		
Acquisition cost	2,545	1,835
Accumulated depreciation	-1,586	-1,214
Carrying amount at the end of the period	959	621

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

### 13. INTANGIBLE ASSETS

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
Capitalized development expenses		
Acquisition cost Jan. 1	67,954	60,945
Additions during the period	6,647	7,009
Acquisition of business unit	0,047	7,007
Acquisition cost at the end of the period	74,601	67,954
Accumulated depreciation Jan. 1	-19.887	-14,385
Depreciation for the period	-5,897	-5,503
Carrying amount at the end of the period	48,817	48,067
Intangible rights		
Acquisition cost Jan. 1	5,719	5,313
Additions during the period	313	406
Disposals during the period		
Acquisition of business unit		
Transfer to assets		
Acquisition cost at the end of the period	6,032	5,719
Accumulated depreciation Jan. 1	-4,686	-4,335
Depreciation for the period	-430	-351
Carrying amount at the end of the period	915	1,032
Customer relations and technology		
Acquisition cost Jan. 1	1,780	1,780
Acquisition of business unit		
Acquisition cost at the end of the period	1,780	1,780
Accumulated depreciation Jan. 1	-1,356	-1,122
Depreciation for the period	-173	-234
Carrying amount at the end of the period	252	425

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

#### **Impairment Test**

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

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

The used discount rate in impairment testing is the Weighted Average Cost of Capital

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

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

The impairment test is done when needed, but at least once a year. Impairment tests

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

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

### 14. ACQUISITIONS

### Acquisitions in 2022

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

### 15. SHARES IN ASSOCIATED COMPANIES

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

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

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

### 16. OTHER FINANCIAL ASSETS

1000 EUR	2022	2021
	410	110
At 1 January	112	112
Additions		
Disposals		
At the closing date	112	112

### 17. DEFERRED TAX LIABILITIES AND ASSETS

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

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

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

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

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

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

### 18. INVENTORIES

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

### 19. TRADE AND OTHER RECEIVABLES (CURRENT)

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

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

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

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

### 20. FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
Interest rate funds		
Balance sheet value on Jan. 1	5,732	5,689
Disposals		
Changes in fair value	-36	44
Balance sheet value at the end of the period	5,696	5,732
Financial assets at fair value through profit or loss total		
Balance sheet value on Jan. 1	5,732	5,689
Disposals		
Changes in fair value	-36	44
Balance sheet value at the end of the period	5,696	5,732
21. CASH AND SHORT-TERM DEPOSITS		
Cash and short-term deposits	13,320	16,306
Total	13,320	16,306
Cash and cash equivalents at the consolidated cash flow statement consist of:		
Interest rate funds	5,696	5,732
Cash and short-term deposits	13,320	16,306
Total	19,016	22,039

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

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

### Shares and the Share Capital

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

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

#### **Translation Differences**

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

#### **Dividends**

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

#### 23. SHARE-BASED PAYMENT PLANS

#### Share-based Remuneration of the Board of Directors

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

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

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

### **Share-based Remuneration of the Management**

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

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

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

### **Share-based Remuneration of the Management**

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

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

#### Share-based Remuneration of the Board of Directors

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

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

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

### **Share-based Remuneration of the Management**

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

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

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

### **Share-based Remuneration of the Management**

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

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

### 24. PROVISIONS

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

## 25. FINANCIAL LIABILITIES

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

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

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

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

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

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

### 26. CHANGES IN LIABILITIES ARISING FROM FINANCING ACTIVITIES

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

## 27. TRADE AND OTHER PAYABLES

	Dec. 31,	Dec. 31,
1000 EUR	2022	2021
Non-current liabilities		
Other non-current liabilities, non-interest bearing		
Non-current advances received		
Other non-current liabilities, non-interest bearing	192	200
Total	192	200
Current liabilities		
Trade and other payables		
Trade liabilities	10,251	3,997
Accrued liabilities, deferred income	9,394	10,396
Other liabilities	6,782	8,746
<u>Total</u>	26,427	23,140
Material of accrued expenses and deferred income consists of personnel expenses and other accruals.		
The fair value of the other liabilities than derivatives doesn't significantly differ from the initial carrying		
value, because the impact on discounting is not significant when taking into account the		
maturities of the loans.		
Financial liabilities at fair value through profit or loss		
Liabilities based on derivates		
Balance sheet value on Jan. 1		
Changes in fair value		
Balance sheet value at the end of the period	0	0

#### 28. FINANCIAL RISK MANAGEMENT

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

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

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

### Market risks

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

### Foreign exchange rate risk

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

The Group follows a currency strategy that aims at securing the margin of business activities in changing market conditions by minimizing the effect of fluctuations in foreign

exchange rates. According to the principles of the currency strategy, surely considered and the most probable net cash flow in a particular currency is hedged as a net position. The cash flow is defined based on the net position of the trade receivables, trade payables, order intake, and forecasted net currency cash flow. According to the currency strategy, the degree of hedging can vary from approximately 50% to 100% of the forecasted net position when the net position exceeds EUR1 million. The Group could also apply hedge accounting as defined in the IFRS 9 standard. Hedge accounting was not applied during 2022. At the end of the financial period, the counter value of the hedged net position was EUR 1.4 million. During the financial year, the amount of the hedged position has been changing between EUR 1.4-5.0 million.

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

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

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

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

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

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

	<del>_</del>	Changes in income statement before tax		Changes in equity before tax	
1000 EUR	2022	2021	2022	2021	
ELID appreciatos	-400	-300	-400	-300	
EUR appreciates EUR depreciates	500	400	500	400	

#### Interest Rate Risk

Part of the Group's debt is tied to fixed interest rates.

At the closing date, the Group had the following fixed interest rate debts outstanding:

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

The table below describes the interest rate risk of debts should there have been a  $\pm 1\%$  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.

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

### **Market Risk of Investment Activities**

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

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

and low-risk money markets or bond instruments and thus have not been hedged using derivatives.

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

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

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

The table below describes the price risk of the investments if they had exhibited a  $\pm 1\%$  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.

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

### Default risk

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

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

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

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

#### Liquidity risk

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

#### Capital structure management

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

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

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

#### 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.

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

# Investments in Shares and Funds and Other Investments

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

#### Derivatives

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

#### **Bank Loans**

Book values are considered to closely approximate fair values.

### **Trade Receivables and Other Receivables**

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

### **Trade Payables and Other Debts**

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

### 29. ADJUSTMENTS TO NET CASH FROM OPERATING ACTIVITIES

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

### **30. OPERATING LEASE AGREEMENTS**

### The Group as Lessee

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

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

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

### 31. SECURITIES AND CONTINGENT LIABILITIES

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

### **32. RELATED PARTY DISCLOSURES**

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

Information on the associated companies is presented in Note 15.

### Related party transactions and balances:

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

Related party transactions have occured based on market terms.

1000 EUR	2022	2021
Employee benefits for key management		
Salaries and remuneration		
Managing director of the parent		
Hannu Huttunen 1.1.–31.12.2021, 1.1.–31.12.2022	298	280
Total	298	280
Remuneration of the members of the board of the parent,		
the financial committee and the managing directors of the business segments		
Erkki Veikkolainen 1.131.12.2021, 1.131.12.2022	32	30
Riitta Tiuraniemi 1.1.–31.12.2021, 1.1.–31.12.2022	22	21
Pekka Kemppainen 1.1.–31.12.2021, 1.1.–31.12.2022	19	17
Petri Toljamo 14.431.12.2021, 1.131.12.2022	21	14
Veli-Pekka Paloranta 1.1.–31.12.2021, 1.1.–31.12.2022	20	20
Juha Putkiranta 1.1.–14.04.2021		5
Seppo Mäkinen 1.1.–14.04.2021		5
Total	114	112
Share-based incentives		
Board of Directors	62	174
Management	142	117
Total	204	291
Except for the Remuneration of the Management and the Members of the Board Bittium has not had		
significant business transactions with its Board, Managing Director, or Members of the Group		
Executive Board, including the companies that they have control or significant influence in.		
There have not been any business transactions or open balances between the related parties.		
Members of the group executive board	1,008	1,044

### Loans and guarantees to related party

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

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

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

<sup>\*)</sup> Proposal of the Board of Directors for 2022.

### **CALCULATION OF KEY RATIOS**

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

### **34. SHAREHOLDINGS AND SHARES**

## Breakdown of Shares by Shareholding, December 31, 2022

Number of shares	Number of shareholders	Percentage of shareholders	Number of shares	Percentage of shares and votes
1-100	10.034	45.7	449.970	1.3
101 - 500	6,785	30.9	1,792,433	5.0
501 - 1000	2,166	9.9	1,699,280	4.8
1001 - 5000	2,246	10.2	5,038,363	14.1
5001 - 10000	374	1.7	2,736,105	7.7
10001 - 50000	301	1.4	5,880,958	16.5
50001 - 100000	33	0.2	2,245,599	6.3
100001 - 500000	24	0.1	5,770,325	16.2
500001 - 9999999999	9	0.0	10,089,231	28.3
Total	21,972	100.0	35,702,264	100.0
Nominee-registered	9		1,389,073	3.9

## Breakdown of Shareholders by Shareholder Type, December 31, 2022 $\,$

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

### Major Shareholders, December 31, 2022

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

# Income Statement, Parent

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

# Balance Sheet, Parent

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

# Cash Flow, Parent

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

 ${\it Cash and cash equivalents include liquid and low risk financing securities.}$ 

# 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.

1000 EUR	2022	2021
1. NET SALES BY SEGMENTS		
Other functions	790	808
Total	790	808
2. NET SALES BY MARKET AREAS		
Europe	701	691
Americas	89	117
Asia		
Total	790	808
3. OTHER OPERATING INCOME		
Other operating income	0	0
Total	0	0
4. NUMBER OF PERSONNEL AND PERSONNEL EXPENSES		
Average number of personnel during the period		
Other functions	7	7
Total	7	7
Number of personnel at the end of the year	7	7
Personnel expenses *		
Management salaries	353	320
Board of Directors	176	169
Other salaries and wages	472	551
Total	1,001	1,040
Pension expenses	136	117
Other social expenses	17	20
Total	1,154	1,177
* The Board of Directors' salaries include the share-based compensation.		
5. DEPRECIATION AND REDUCTION IN VALUE		
Intangible rights	14	14
Other capitalized long-term expenditures	0	0
Machinery and equipment	0	0
Total	14	14

1000 EUR	2022	2021
6. OTHER OPERATING CHARGES		
IT equipment and SW expenses	33	42
Premises expenses	17	17
Administrative services	440	292
Travel expenses	39	14
Voluntary staff expenses	22	14
Other business expenses	320	444
Total	872	823
A. Physical access		
Auditor's charges	0.7	
Auditing	23	28
Tax advice	1	0
Other services	1	2
Total	25	30
7. FINANCIAL INCOME AND EXPENSES		
Income from investments		
From Group companies		
From others	63	48
Total	63	48
Other interest and financial income		
From Group companies	2,284	2,005
From others	35	43
Total	2,320	2,048
Other interest and financial expenses		
To Group companies	3	0
To others	790	
Total	790	761
Reduction in the value of the investment	0	0
Net financial income and expenses	1,590	1,335
Net financial income and expenses including exchange gains and losses	-237	-13
8. APPROPRIATIONS		
Received Group contributions	1,500	0
9. INCOME TAX		
Other direct taxes	0	3
Total	0	3

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

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

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
13. CURRENT RECEIVABLES		
13. CURRENT RECEIVABLES		
Accounts receivable		
From Group companies	0	1
Total	0	1
Other receivables		
From Group companies	98,607	98,455
From others	52	25
Total	98,659	98,480
Dranaid expanses and accrued income		
Prepaid expenses and accrued income From Group companies	1,500	C
From others	60	27
Total	1,560	27
iotai	1,300	
Current receivables total	100,219	98,508
14. FINANCING SECURITIES		
Cash and cash equivalents include liquid and low-risk financing securities.		
	5,696	5,732
Cash and cash equivalents include liquid and low-risk financing securities.	5,696	5,732
Cash and cash equivalents include liquid and low-risk financing securities.  Financial assets at fair value through profit or loss	5,696	
Cash and cash equivalents include liquid and low-risk financing securities.  Financial assets at fair value through profit or loss  15. SHAREHOLDERS' EQUITY		12,94
Cash and cash equivalents include liquid and low-risk financing securities.  Financial assets at fair value through profit or loss  15. SHAREHOLDERS' EQUITY  Share capital at the beginning of the period  Share capital at the end of the period	12,941 <b>12,941</b>	12,941 <b>12,94</b> 1
Cash and cash equivalents include liquid and low-risk financing securities.  Financial assets at fair value through profit or loss  15. SHAREHOLDERS' EQUITY  Share capital at the beginning of the period  Share capital at the end of the period	12,941	12,941 <b>12,94</b> 1
Cash and cash equivalents include liquid and low-risk financing securities.  Financial assets at fair value through profit or loss  15. SHAREHOLDERS' EQUITY  Share capital at the beginning of the period  Share capital at the end of the period  Invested unrestricted equity fund at the beginning of the period	12,941 <b>12,941</b>	12,941 <b>12,94</b> 1 25,953
Cash and cash equivalents include liquid and low-risk financing securities.  Financial assets at fair value through profit or loss  15. SHAREHOLDERS' EQUITY  Share capital at the beginning of the period  Share capital at the end of the period  Invested unrestricted equity fund at the beginning of the period  Share issue  Invested unrestricted equity fund at the end of the period	12,941 12,941 25,953 25,953	12,94 12,94 25,953 25,953
Cash and cash equivalents include liquid and low-risk financing securities.  Financial assets at fair value through profit or loss  15. SHAREHOLDERS' EQUITY  Share capital at the beginning of the period  Share capital at the end of the period  Invested unrestricted equity fund at the beginning of the period  Share issue  Invested unrestricted equity fund at the end of the period  Retained earnings at the beginning of the period	12,941 12,941 25,953 25,953	12,941 12,941 12,943 25,953 25,953
Cash and cash equivalents include liquid and low-risk financing securities.  Financial assets at fair value through profit or loss  15. SHAREHOLDERS' EQUITY  Share capital at the beginning of the period  Share capital at the end of the period  Invested unrestricted equity fund at the beginning of the period  Share issue  Invested unrestricted equity fund at the end of the period  Retained earnings at the beginning of the period  Dividend distribution	12,941 12,941 25,953 25,953 90,472	12,941 12,941 25,953 25,953 91,916
Cash and cash equivalents include liquid and low-risk financing securities.  Financial assets at fair value through profit or loss  15. SHAREHOLDERS' EQUITY  Share capital at the beginning of the period  Share capital at the end of the period  Invested unrestricted equity fund at the beginning of the period  Share issue  Invested unrestricted equity fund at the end of the period  Retained earnings at the beginning of the period  Dividend distribution	12,941 12,941 25,953 25,953	12,941 12,941 25,953 25,953 91,916 0
Cash and cash equivalents include liquid and low-risk financing securities.  Financial assets at fair value through profit or loss  15. SHAREHOLDERS' EQUITY  Share capital at the beginning of the period  Share capital at the end of the period  Invested unrestricted equity fund at the beginning of the period  Share issue  Invested unrestricted equity fund at the end of the period  Retained earnings at the beginning of the period  Dividend distribution  Net profit for the period	12,941 12,941 25,953 25,953 90,472 0 1,840	12,941 12,941 25,953 25,953
Cash and cash equivalents include liquid and low-risk financing securities.  Financial assets at fair value through profit or loss  15. SHAREHOLDERS' EQUITY  Share capital at the beginning of the period  Share capital at the end of the period  Invested unrestricted equity fund at the beginning of the period  Share issue  Invested unrestricted equity fund at the end of the period  Retained earnings at the beginning of the period  Dividend distribution  Net profit for the period	12,941 12,941 25,953 25,953 90,472 0 1,840	12,941 12,941 25,953 25,953 91,916 0

1000 EUR	Dec. 31, 2022	Dec. 31, 2021
IUU EUR	2022	2021
16. LIABILITIES		
Current liabilities		
Accounts payable		
To Group companies	0	7
To others	163	30
Total	163	37
Other short-term liabilities		
To Group companies	2,936	2,822
To others	32	33
Total	2,968	2,854
Accrued expenses and deferred income		
To others	321	276
Total	321	276
Current liabilities total	3,452	3,167
	Dec. 31,	Dec. 31
1000 EUR	2022	2021
17. SECURITIES AND CONTINGENT LIABILITIES		
On behalf of Group companies		
Guarantee limits	2,992	3,032
of which guarantees in use total		
Leasing liabilities		
Falling due in the next year	1,011	1,113
Falling due after one year	868	1,072
Other liabilities		
Credit Cards	6	
Rental liabilities		
Nertical habilities		
Falling due in the next year	9	5
	9	9
Falling due in the next year	9	13

1000 EUR			Dec. 31, 2022	Dec. 31, 2021
18. NOMINAL VALUE OF CURRENCY DERIVATES				
Foreign exchange forwards				
Market value			33	21
Nominal value			5,000	5,000
	Owned by	Ow	ned by	Book value
	Parent, % Group, %		oup, %	1000 EUR
19. SHARES AND HOLDINGS				
Subsidiaries				
Bittium Technologies Oy	100.00		100.00	39,749
Other holdings by Parent				
Partnera Oy				1

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

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

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

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

In Oulu, February 9, 2023

Erkki Veikkolainen Chairman of the Board

Riitta Tiuraniemi Member of the Board

Pekka Kemppainen Member of the Board

Petri Toliamo Member of the Board Veli-Pekka Paloranta Member of the Board

Hannu Huttunen CFO

# Auditor's Note

Auditor's Report has been issued today.

In Oulu February 10, 2023

Ernst & Young Oy Authorized Public Accountant Firm

Jari Karppinen, Authorized Public Accountant

# Auditor's Report

(Translation of the Finnish original)

# To the Annual General Meeting of Bittium Oyj

# Report on the Audit of Financial Statements

### Opinion

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

### In our opinion

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

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

### **Basis for Opinion**

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

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

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

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

### **Key Audit Matters**

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

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

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

#### **KEY AUDIT MATTER**

#### HOW OUR AUDIT ADDRESSED THE KEY AUDIT MATTER

#### Recognition of Revenue from long-term construction contracts

We refer to the Group's accounting policies and to the note 3

Fixed price contracts in long-term construction contracts are part of the Group's business. These projects constitute a significant portion of the consolidated net sales. In the financial statements 2022 the revenue recognized from these projects was 9.2 million euro, which is 11 percentage of the total net sales. The group applies the percentage of completion method for recognizing revenue from long-term construction contracts, which involves the use of significant management estimates. E.g. the following estimates include significant management judgement for each project: stage of completion, total contract costs and the project margin. During the performance phase, the financial outcome of a project is based on the estimates made by the management and will come more accurate when the project advances.

In the Group net sales is a key performance indicator, which might generate an incentive to prematurely recognition of revenue. Revenue recognition was determined to be a key audit matter and a significant risk of material misstatement referred to in EU Regulation No 537/2014, point (c) of Article 10(2), because of the risk related to correct timing of revenue.

Our audit procedures in which risk of material misstatement on revenue recognition has been taken into account included, among other:

- assessment of the accounting principles of the group on revenue recognition and comparing them with the applied accounting standards:
- examination of the nature of revenue, stage of completion and financial contract terms behind the revenue recognized in the long-term projects;
- tests of revenue recognition, which included testing of the calculations and the estimates used in the revenue recognition;
- assessing the revenue recognized with substantive analytical procedures and
- assessment of the disclosure in respect of the revenue.

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

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

In preparing the financial statements, the Board of Directors and the Managing Director are responsible for assessing the parent company's and the group's ability to continue as going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting. The financial statements are prepared

using the going concern basis of accounting unless there is an intention to liquidate the parent company or the group or cease operations, or there is no realistic alternative but to do so

# Auditor's Responsibilities for the Audit of Financial Statements

Our objectives are to obtain reasonable assurance on whether the financial statements as a whole are free from material misstatement, whether due to fraud or error and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with good auditing practice will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

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

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the parent company's or the group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of the Board of Directors' and the Managing Director's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may east significant doubt

on the parent company's or the group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events so that the financial statements give a true and fair view.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless

law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

# Other Reporting Requirements

## Information on Our Audit Engagement

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

### Other Information

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

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

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

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

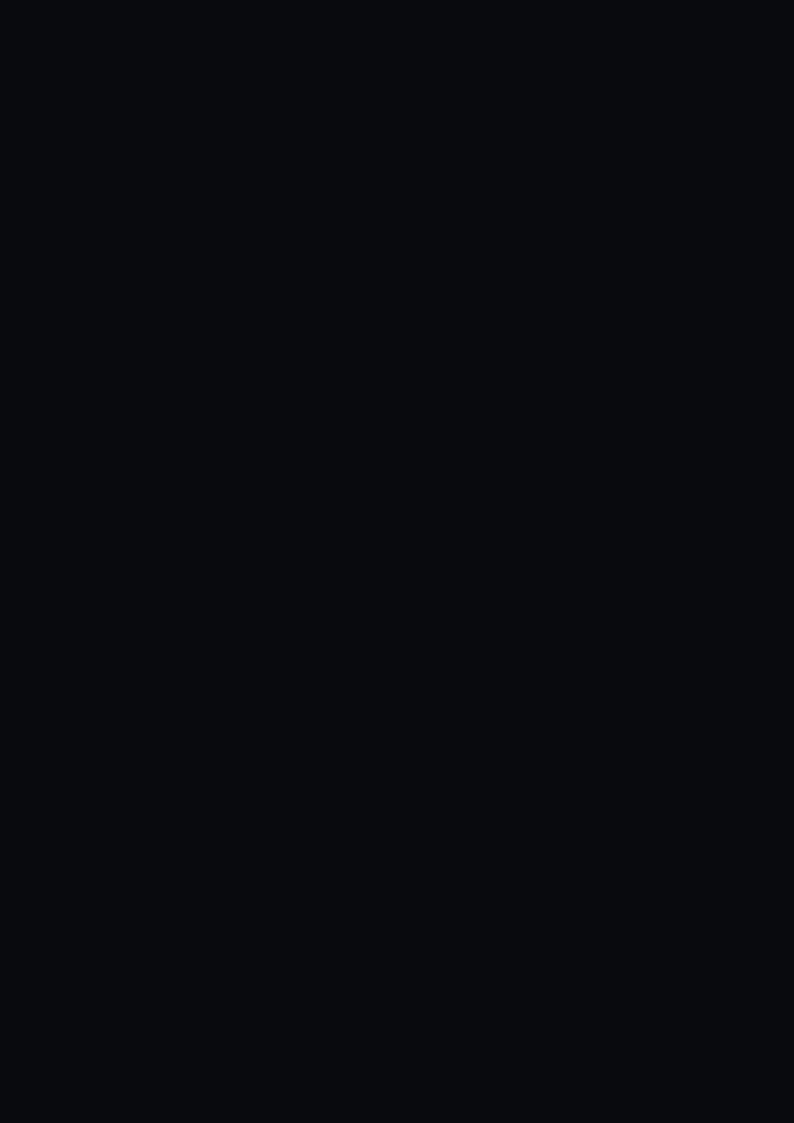
If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Oulu, February 10, 2023

Ernst & Young Oy Authorized Public Accountant Firm

Jari Karppinen Authorized Public Accountant







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