

Bittium

Bittium Corporation Half-Year Financial Report January-June 2023

Net sales

35.6 MEUR

Net sales growth

-13.2 %

Operating result

-3.2 MEUR

Operating result, % of net sales

-9.1 %

Net Sales of Second Quarter Decreased Year-on-Year and Operating Result Was Positive

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

Summary April-June 2023

- Net sales were EUR 20.7 million (EUR 22.7 million), representing an 8.8 percent decrease year-on-year.
- The share of product-based net sales was EUR 13.3 million (EUR 15.8 million), representing 64.5 percent of the net sales. The share of Medical Technologies products was EUR 7.6 million (EUR 7.7 million), and the share of Defense & Security products was EUR 5.8 million (EUR 8.2 million).
- The share of services-based net sales was EUR 7.3 million (EUR 6.9 million), representing 35.5 percent of the net sales. The share of Connectivity Solutions R&D services was EUR 4.3 million (EUR 3.7 million).
- EBITDA was EUR 2.6 million (EUR 3.4 million).
- The operating result was EUR 0.3 million (EUR 0.8 million).
- The result for the period was EUR 0.1 million, and earnings per share were EUR 0.003 (result for the period EUR 0.6 million and earnings per share EUR 0.016).
- Cash flow from operating activities was EUR -5.7 million (EUR 2.9 million).
- Net cash flow was EUR -10.6 million (EUR -1.0 million).

Summary January-June 2023

- Net sales were EUR 35.6 million (EUR 41.0 million), representing a 13.2 percent decrease year-on-year.
- The share of product-based net sales was EUR 21.4 million (EUR 27.2 million), representing 60.0 percent of the net sales. The share of Medical Technologies products was EUR 11.1 million (EUR 11.3 million), and the share of Defense & Security products was EUR 10.2 million (EUR 15.9 million).
- The share of services-based net sales was EUR 14.2 million (EUR 13.8 million), representing 40.0 percent of the net sales. The share of Connectivity Solutions R&D services was EUR 8.9 million (EUR 8.0 million).
- EBITDA was EUR 1.6 million (EUR 5.0 million).
- Operating result was EUR -3.2 million (EUR -0.2 million).
- Result for the period was EUR -3.6 million, and earnings per share were EUR -0.102 (result for the period EUR -0.6 million and earnings per share EUR -0.018).
- Cash flow from operating activities was EUR -4.6 million (EUR 6.0 million).
- Net cash flow was EUR -12.2 million (EUR 0.0 million).
- The order backlog was EUR 28.0 million (EUR 29.6 million)

GROUP (MEUR)	4-6/2023	4-6/2022	1-6/2023	1-6/2022
	3 months	3 months	6 months	6 months
NET SALES	20.7	22.7	35.6	41.0
Change of net sales, %	-8.8 %	0.2 %	-13.2 %	3.4 %
EBITDA	2.6	3.4	1.6	5.0
EBITDA, % of net sales	12.7 %	15.2 %	4.5 %	12.3 %
OPERATING PROFIT / LOSS	0.3	0.8	-3.2	-0.2
Operating profit / loss, % of net sales	1.4 %	3.5 %	-9.1 %	-0.6 %
RESULT OF THE PERIOD FROM CONTINUING OPERATIONS	0.1	0.6	-3.6	-0.6
CASH AND OTHER LIQUID ASSETS	6.8	22.0	6.8	22.0
EQUITY RATIO (%)	69.5 %	70.9 %	69.5 %	70.9 %
EARNINGS PER SHARE (EUR)	0.003	0.016	-0.102	-0.018

Bittium's CEO Johan Westermarck

The net sales of the second quarter of the year decreased by 8.8 percent and was EUR 20.7 million. Operating result was EUR 0.3 million, which corresponds to 1.4 percent of net sales. Operating result decreased by EUR 0.5 million from the previous year. The order backlog decreased slightly from the corresponding period of the previous year and was EUR 28.0 million.

The relative share of the product business in the net sales decreased slightly from the previous year, mainly due to the cyclical nature of orders and timing of deliveries of tactical communication products. Deliveries of medical technology products increased compared to the beginning of the year as the availability of components that had slowed down the product deliveries improved significantly during the second quarter, and the product-based net sales in the second quarter were at the same level as in previous year. Service-based net sales increased by 6.9 percent year-on-year due to the increase in the demand for R&D services.

The net sales for the first half of the year decreased by 13.2 percent from the previous year and was EUR 35.6 million. The decrease was caused mainly by the cyclical nature of orders and timing of the deliveries of tactical communication products, and the delays in product deliveries of medical technology products caused by component shortages, especially in the first quarter of the year. Demand for R&D services grew, and service-based net sales in the Connectivity Solutions business unit increased from the previous year.

The operating result for the first half of the year was EUR -3.2 million. The net cash flow was EUR -12.2 million, mainly caused by the result for the period EUR -3.6 million, a change in working capital of EUR 5.5 million, EUR 4.4 million R&D investments in own products, a dividend payment of EUR 1.8 million, and the repurchase of own shares of EUR 0.4 million.

Even though the second quarter was significantly better than the first, the development of the first half of the year was weak. The company has three business units: Defense & Security, Medical Technologies, and Connectivity Solutions, and we have started measures to improve their efficiency and profitability. In June, we strengthened the group management team and started a thorough review of the processes, operating methods, and cost structure. We continue working on our strategy towards more independent business units, and we aim to disclose more about these plans during this fall. I see that with these measures we can achieve our announced goal of profitable growth. The biggest challenge for the current year is the shortage of components, and we have continued to take measures to ensure the availability of important components for us in the future. We expect the component shortage to recede during the current year.

The world political situation changed after Russia attacked Ukraine, and its affects are still apparent in the defense market. Interest in Bittium's tactical communication product portfolio has grown. Bittium is involved in several tenders for tactical communication modernization projects in different countries. The tendering stages are slow, but we expect the first tenders to progress to completion during the current year and the first half of next year, depending on the scope of each project. The feedback from the field tests of our products has been positive.

Cooperation with our Finnish and international customers has continued well, and customer satisfaction is at a good level. Product deliveries continued to our customers in Finland, Austria, and Estonia, but the delivery volumes in the first half of the year were low

compared to the corresponding period last year due to the cyclical nature of orders and timing of the deliveries. Finnish Defense Forces continued the deployment of Bittium Tough SDR™ radios and approved the final delivery of their software. Waveform development of software radios and development of new functionalities for the customer continued as planned.

Finland has joined the military alliance NATO, which is expected to strengthen our competitive position, especially in tenders for NATO countries. We have applied for a NATO information security listing for our secure Bittium Tough Mobile™ 2 C solution, and we expect it within the current year. Interest in Bittium Tough Mobile™ information security phones and information security related software has increased due to the numerous cyber security attacks, and we gained new customers at the beginning of the year, mainly from Europe.

The demand for Bittium Faros™ ECG measuring devices remained at the same level, and a significant part of the product deliveries were made to our US customer Boston Scientific Cardiac Diagnostics (previously known as Preventice). Product deliveries of Bittium Respiro™ home sleep apnea measuring device began in Europe, and the feedback from our customers' clinical studies has been positive. Respiro's sales are expected to strengthen during the current year and form a one significant growth driver for the Medical Technologies' business area in the future. The medical device 510k clearance by the US Food and Drug Administration (FDA) for Respiro and its analysis software that we have applied for will require more extensive clinical tests. Based on current information, estimate for receiving the permit is during 2024. The authority's further interpretation of possible additional material needs may affect the processing time of the application.

The demand for R&D services increased with a focus on the Industrial IoT, Telecom, and MedTech markets, where the growing need for cloud communication increases the demand. New customers were acquired from, among other things, the transport, traffic, and professional tool markets. Several European companies have partly started to shift the focus of design and manufacturing to Europe, which has also reflected on the increase in demand for Bittium's R&D services. Customer satisfaction in our R&D service projects is very high.

Outlook for 2023

Market Outlook 2023

The global disruption in the availability of electronic components has had a slowing effect on the development of the company's business and sales during the beginning of the year. The company estimates that the markets are recovering, and that the component shortage will recede during 2023.

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

Financial Outlook 2023 (unchanged)

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.

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.

More information on the market outlook, risks, and uncertainties is available in this report's chapters "risks and uncertainties" and "market outlook", and on the company's website at www.bittium.com.

Strategy Implementation in January-June 2023

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 with the aim of starting business-specific segment reporting by the beginning of 2024 at the latest. The three business units are: Medical Technologies, Defense & Security, and Connectivity Solutions. The strategy work has continued, and the company aims to disclose more information on this later in the fall.

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

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

Market Environment and Business Development in January-June 2023

Defense & Security Business Unit

The world's political situation changed in February 2022 after Russia invaded Ukraine. With the outbreak of the war, the increase in the states' defense budgets has affected the demand for defense industry products and services. Bittium's tactical communication system and radios are technically very efficient and modern solutions that can tolerate extreme conditions, developed for the management of military forces. Interest in Bittium's products has grown as new modernization and development projects for the defense forces of different countries have started. Bittium is participating in several modernization project tenders in different countries. The tendering stages are slow, but we expect the first tenders to progress to completion during the current year and the first half of next year, depending on the scope of each project. Feedback on Bittium's products in field tests has been positive.

The cooperation with our domestic customer continued to be close. Compared to the corresponding period last year, the product delivery volumes were low in the first half of the year due to the cyclical nature of orders and timing of deliveries. In June, the Finnish Defense Forces placed a system support order on Bittium Tactical Wireless IP Network™ (TAC WIN) software radio system and the Bittium Tough VoIP communication system for the year 2023. The order totaled to EUR 1.95 million. The Defense Forces continued the deployment of Bittium Tough SDR™ radios and accepted the final delivery of the radio software. Waveform development of software radios and development of new functionalities for the customer continued as planned.

In Austria, the implementation of Bittium's tactical communication systems by the local army continued as planned, and deliveries of system products and integration and testing of products and systems continued. During the beginning of the year, discussions with international companies developing air defense and sensor systems progressed well.

Finland's NATO membership is expected to strengthen the company's competitive position, especially in tenders for NATO countries, and interest in Bittium's products has increased. NATO membership also enables Bittium to implement NATO waveforms and encryption solutions, if necessary, and offers the opportunity to participate in the research programs of NATO countries. Bittium has applied for a NATO information security listing for its secure Bittium Tough Mobile™ 2 C solution, which is expected to be received during the current year. It is believed that entering the list of NATO-approved devices will have a positive effect on the sales of the solution.

Interest in Bittium Tough Mobile™ security phones and security-related software has increased along with numerous security attacks. Phones, their background systems and software have been delivered to several European countries for official use during the past six months.

The cooperation with the Swedish partner Tutus, which specializes in certified network encryption solutions, continued very good. Tutus and Bittium have jointly developed a mobile communication solution with a high level of information security, combining Bittium's secure Bittium Tough Mobile 2 smartphone platform and Tutus' encryption solution approved by the Swedish government. The solution has been customized for a major Swedish authority, and their deliveries continued during the first half of 2023.

The secure Bittium Tough Mobile™ 2 Tactical solution introduced to the market last year has aroused interest among the defense administration authorities of different countries, and Bittium has delivered several systems for piloting in different countries. The solution enabling the soldier's mobile communication is compatible with various battle management systems, which enables real-time and efficient sharing of situational awareness in tactical networks, which is a significant advantage for military forces management.

Medical Technologies Business Unit

The component shortage significantly slowed down the manufacturing and deliveries of medical technology products during the beginning of the year, and e.g., the production of Bittium Faros™ ECG devices was very limited for several months. In April-May, production was increased, and the manufacturing of products continued with better capacity in May-June. The component shortage is expected to recede during the current year.

Most product deliveries of Faros ECG devices were still made to our US customer Boston Scientific Cardiac Diagnostics (CDx) (previously called Preventice). CDx is one of the leading providers of ECG measurement services in the United States. Demand for Faros in markets outside the United States continued to grow slowly. The growth is slowed down by the variety of insurance practices of countries, which affect the development of remote diagnostics country by country.

In the neurophysiology market, the piloting of Bittium BrainStatus™ EEG measuring devices in intensive care units continued in Finland and abroad. Intensive care recommendations are changing in a more demanding direction regarding EEG measurement, which is expected to have a positive effect on the demand for BrainStatus.

Product deliveries of Bittium Respiro™, home sleep apnea test devices, continued in Europe, and the feedback from our customers' clinical trials has been positive. Respiro's sales are expected to strengthen during the current year and form one significant growth driver in the Medical Technologies business unit in the future. The medical device 510k clearance by the US Food and Drug Administration (FDA) for Respiro and its analysis software that we have applied for will require more extensive clinical tests. Based on the current information, the estimate for receiving the permit is during 2024. The authority's further interpretation of possible additional material needs may affect the processing time of the application.

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

Connectivity Solutions Business Unit

The demand for R&D services increased during the beginning of the year. The demand focused on the Industrial IoT, Telecom, and MedTech technology markets, where companies seek wireless connectivity for their products due to the growing need for cloud communication. The goal of Western companies to shift the focus of design and manufacturing to an increasing extent, e.g., in Europe, can be seen as a factor to increase demand for Bittium's R&D services, especially in terms of product design. At the same time, the demand for software engineering has decreased.

Cooperation with domestic and foreign customers continued well and customer satisfaction has risen to a very high level. While several customer projects were successfully completed, the company's customer portfolio expanded with several new customers in the transport, traffic and professional tool markets, among others. Among other things, customer projects focus on designing a remote-controlled overall system and its connectivity solution, connectivity parts of traffic control systems, as well as measuring devices intended for professional use and their connectivity solutions.

Financial Performance in January-June 2023

Bittium's net sales in January-June 2023 decreased by 13.2 percent year-on-year to EUR 35.6 million (EUR 41.0 million).

The share of product-based net sales was EUR 21.4 million (EUR 27.2 million), representing 60.0 percent of the net sales. The share of medical technologies products was EUR 11.1 million (EUR 11.3 million), and the share of tactical communication and secure communication products and systems was EUR 10.2 million (EUR 15.9 million). The decrease in product net sales was mainly caused by the cyclical nature of orders and timing of deliveries of tactical communication products, as well as the delay in deliveries of medical technology products due to component shortages, especially in the first quarter of the year.

The share of services-based net sales was EUR 14.2 million (EUR 13.8 million), representing 40.0 percent of the net sales. The share of Connectivity Solutions' R&D services was EUR 8.9 million (EUR 8.0 million), resulting mainly from R&D services for wireless telecommunication customers.

EBITDA was EUR 1.6 million (EUR 5.0 million).

R&D investments were EUR 11.2 million (EUR 11.1 million), representing 31.4 percent of net sales (27.2 percent) of which EUR 4.4 million were capitalized in the balance sheet, being EUR 1.4 million more than a year ago.

The operating result was EUR -3.2 million (EUR -0.2 million).

Cash flow from operating activities was EUR -4.6 million (EUR 6.0 million). Net cash flow during the period was EUR -12.2 million (EUR 0.0 million). The most significant items in the net cash flow included the result for the period of EUR -3.6 million, the change in working capital of EUR 5.5 million, R&D investments of EUR 4.4 million in own products, a dividend payment of EUR 1.8 million, and the acquisition of own shares of EUR 0.4 million (result for the period EUR -0.6 million, change in working capital of EUR 0.0 million, R&D investments of EUR 3.0 million in own products and a dividend payment of EUR 1.4 million).

The equity ratio was 69.5 percent (70.9 percent).

Net gearing was 14.6 percent (0.3 percent).

The order backlog at the end of June was EUR 28.0 million (EUR 29.6 million).

Half Year Figures

GROUP'S NET SALES AND OPERATING RESULT, MEUR	1H/23	2H/22	1H/22	2H/21
Net sales	35.6	41.4	41.0	47.2
Operating profit (loss)	-3.2	0.6	-0.2	3.9
Result before taxes	-3.6	0.2	-0.7	3.6
Result for the period	-3.6	0.9	-0.6	4.4

DISTRIBUTION OF NET SALES BY PRODUCT AND SERVICES, MEUR AND %	1H/23	2H/22	1H/22	2H/21
Product-based net sales	21.4 60.0 %	30.2 72.9 %	27.2 66.3 %	35.2 74.5 %
Services-based net sales	14.2 40.0 %	11.2 27.1 %	13.8 33.7 %	12.0 25.5 %

DISTRIBUTION OF PRODUCT-BASED NET SALES, MEUR AND %	1H/23	2H/22	1H/22	2H/21
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Defense & Security products	10.2 47.9 %	18.9 62.6 %	15.9 58.5 %	20.8 59.3 %
Medical Technologies products	11.1 52.1 %	11.3 37.4 %	11.3 41.5 %	14.3 40.7 %

DISTRIBUTION OF SERVICES-BASED NET SALES, MEUR AND %	1H/23	2H/22	1H/22	2H/21
Connectivity Solutions R&D services	8.9 62.3 %	7.2 64.0 %	8.0 57.8 %	7.7 63.8 %
Other service-based net sales	5.4 37.7 %	4.0 36.0 %	5.8 42.2 %	4.4 36.2 %

DISTRIBUTION OF NET SALES BY MARKET AREAS, MEUR AND %	1H/23	2H/22	1H/22	2H/21
Asia	0.5 1.4 %	0.7 1.8 %	0.5 1.3 %	0.3 0.6 %
North and South America	10.2 28.6 %	12.9 31.1 %	10.4 25.4 %	14.9 31.5 %
Europe	24.9 70.0 %	27.8 67.1 %	30.1 73.3 %	32.0 67.9 %

Quarterly Figures

GROUP'S NET SALES AND OPERATING RESULT, MEUR	2Q/23	1Q/23	4Q/22	3Q/22	2Q/22
Net sales	20.7	14.9	27.6	13.8	22.7
Operating profit (loss)	0.3	-3.5	3.0	-2.4	0.8
Result before taxes	0.1	-3.7	2.8	-2.6	0.6
Result for the period	0.1	-3.7	3.5	-2.6	0.6

DISTRIBUTION OF NET SALES BY PRODUCT AND SERVICES, MEUR AND %	2Q/23	1Q/23	4Q/22	3Q/22	2Q/22
Product-based net sales	13.3 64.5 %	8.0 53.7 %	20.9 75.8 %	9.3 67.3 %	15.8 69.7 %
Services-based net sales	7.3 35.5 %	6.9 46.3 %	6.7 24.2 %	4.5 32.7 %	6.9 30.3 %

DISTRIBUTION OF PRODUCT-BASED NET SALES, MEUR AND %	2Q/23	1Q/23	4Q/22	3Q/22	2Q/22
Defense & Security products	5.8 43.2 %	4.5 55.6 %	15.8 75.5 %	3.1 33.6 %	8.2 51.6 %
Medical Technologies products	7.6 56.8 %	3.6 44.4 %	5.1 24.5 %	6.2 66.4 %	7.7 48.4 %

DISTRIBUTION OF SERVICES-BASED NET SALES, MEUR AND %	2Q/23	1Q/23	4Q/22	3Q/22	2Q/22
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Connectivity Solutions R&D services	4.3	4.6	4.2	3.0	3.7
	59.1 %	65.8 %	62.4 %	66.4 %	54.6 %
Other service-based net sales	3.0	2.4	2.5	1.5	3.1
	40.9 %	34.2 %	37.6 %	33.6 %	45.4 %

DISTRIBUTION OF NET SALES BY MARKET AREAS, MEUR AND %	2Q/23	1Q/23	4Q/22	3Q/22	2Q/22
Asia	0.3	0.2	0.5	0.3	0.2
	1.3 %	1.5 %	1.8 %	1.9 %	0.9 %
North and South America	6.9	3.3	7.6	5.3	6.6
	33.2 %	22.2 %	27.7 %	38.1 %	29.1 %
Europe	13.5	11.4	19.5	8.3	15.9
	65.5 %	76.2 %	70.6 %	60.0 %	70.0 %

Statement of Financial Position and Financing

The figures presented in the statement of financial position of June 30, 2023, are compared with the statement of the financial position of December 31, 2022 (MEUR).

	30.6.2023	Dec 31, 2022
Non-current assets	86.0	85.0
Current assets	75.2	84.6
Total assets	161.2	169.7
Share capital	12.9	12.9
Other capital	97.1	102.8
Total equity	110.0	115.8
Non-current liabilities	2.1	21.7
Current liabilities	49.0	32.2
Total equity and liabilities	161.2	169.7
Cash flow of the review period:	1-6/2023	1-12/2022
+ profit of the period +/- Adjustment of accrual basis items	1.2	11.7
+/- Change in net working capital	-5.5	-2.9
- interest, taxes, and dividends	-0.3	-0.8
= net cash from operating activities	-4.6	8.0
- net cash from investing activities	-4.7	-8.0
- net cash from financing activities	-2.9	-3.0
= net change in cash and cash equivalents	-12.2	-3.0

The number of gross investments in the period under review was EUR 5.9 million. Net investments for the review period totaled to EUR 5.8 million. The total amount of depreciation during the period under review was EUR 4.8 million. The amount of interest-bearing debt, including finance lease liabilities, was EUR 22.8 million at the end of the reporting period (EUR 22.4 million). Bittium's equity ratio at the end of the period was 69.5 percent (69.7 percent).

The Group's liquidity remained good despite the uncertainty caused by 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 6.8 million (EUR 19.0 million). Net cash flow during the period was EUR -12.2 million (EUR -3.0 million). The most significant items in the net cash flow included the result for the period of EUR -3.6 million, the change in working capital of EUR 5.5 million, R&D investments of EUR 4.4 million in own products, a dividend payment of EUR 1.8 million, and the acquisition of own shares of EUR 0.4 million (result for the period EUR 0.3 million, change in working capital of EUR -2.9 million, R&D investments of EUR 6.6 million in own products and a dividend payment of EUR 1.4 million).

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-June 2023, the R&D investments were EUR 11.2 million (EUR 11.1 million), representing 31.4 percent of the net sales (27.2 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)

	1-6 2023 6 months	1-6 2022 6 months
Total R&D investments	11.2	11.1
Capitalized R&D investments	-4.4	-3.0
Depreciations and impairment of R&D investments	2.8	2.8
Cost impact on income statement	9.6	11.0
R&D investments, % of net sales	31.4 %	27.2 %

CAPITALIZED R&D INVESTMENTS IN BALANCE SHEET, MEUR	1-6 2023 6 months	1-6 2022 6 months
Balance sheet value in the beginning of the period	48.8	48.1
Additions during the period	4.4	3.0
Depreciations and impairment of R&D investments	-2.8	-2.8
Balance sheet value at the end of the period	50.4	48.2

Personnel

The Bittium group employed an average of 613 people in January-June 2023 (648 employees). At the end of June 2023, the company had 616 employees (649 employees).

Changes in the Company's Management

Laura Kauppinen (51, PhD. Psychology) was appointed as Chief Development Officer (CDO) of Bittium Corporation and a member of the management group as of June 1, 2023. In addition, her areas of responsibility include human resources, information management, operations including purchasing, logistics and production, as well as quality and environmental functions, and corporate technology services. She reports to CEO Johan Westermarck. Laura Kauppinen has previously worked as a Chief Development Officer at Citec and in several group management positions for the past 20 years, e.g., Executive Vice President, Corporate Development and Administration at Maintpartner and Vice President, HR and Communications at Eltel.

Antti Keränen (43, M.Sc. Econ) was appointed as Chief Financial Officer (CFO) of Bittium Corporation and a member of the management group as of June 1, 2023. He reports to CEO Johan Westermarck. Keränen joins Bittium from the capital investment company Sentica Partners, where he has worked for almost 15 years and served as Investment Director for the last 9 years. Before this, he has worked in corporate finance positions at Kaupthing Bank.

Pekka Kunnari, CFO of Bittium Corporation and a member of the management team, decided to leave the company and continue his career outside Bittium. Jari-Pekka Innanen, Vice President, Engineering Services of Bittium Corporation, and a member of the management group, continues at Bittium and transferred to lead Engineering function in the Connectivity business unit.

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

Share and Share Capital

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

At the end of the financial period, the fully paid share capital of the Company entered into the Finnish Trade Register was EUR 12,941,269.00 and the total number of the shares was 35,702,264. The accounting par value of the Company's share is EUR 0.10. The Company does not have its own shares in its possession. On June 30, 2023, the company held 65,172 of its own shares.

MARKET VALUES OF SHARES (EUR)	1-6/2023	1-6/2022
	6 months	6 months
Highest	4.55	6.08
Lowest	3.85	4.46
Average	4.20	5.22
At the end of period	4.21	5.12
Market value of the stock. (MEUR)	150.3	182.8

Trading value of shares. (MEUR)	8.5	28.0
Number of shares traded. (1.000 pcs)	2021	5 359
Related to average number of shares %	5.7	15.0

Incentive Systems

Management Share-Based Incentive Plan

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

The PSP consists of three annually commencing three-year performance share plans, PSP 2023-2025, PSP 2024-2026 and PSP 2025-2027, each with a one-year performance period, which is followed by the payment of the share reward and a two-year transfer restriction period. The commencement of the following two plans, PSP 2024-2026 and PSP 2025-2027, is, however, subject to a separate Board decision.

Eligible to participate in the first plan, PSP 2023-2025, are the members of Bittium's Management Group. The performance measure based on which the potential share reward under the first plan, PSP 2023-2025, will be paid is the revenue growth of Bittium. A precondition for the payment of the share reward is, in addition, that the employment relationship of the participant with Bittium continues at the time the reward is paid. The potential reward will be paid in shares of Bittium and in cash.

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

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

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

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

The fixed Matching Share Plan was a one-off plan, in which the CEO was expected to purchase shares of Bittium Corporation with at least the value of 200,000 euros at a price formed in public trading on Nasdaq Helsinki. The shares were purchased after the publication date of Bittium Corporation's Business Review January-March 2023. Bittium Corporation matched the share investment by way of the CEO received matching shares without consideration with a net value of 100,000 euros. The matching shares were paid in listed shares of Bittium Corporation. In addition to the matching shares, the company paid the payroll tax and other taxes and tax-like charges payable in connection with the Plan. Based on the current value of the company's share the estimated aggregate number of matching shares to be delivered under the Plan was approximately 25,000 shares. The matching shares received by the CEO based on the Plan will be subject to a transfer restriction (lock-up) of three years.

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

Other Incentive Systems

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

Shareholders

Largest Shareholders, on June 30, 2023

	Number of shares	% of shares
1. Veikkolainen Erkki	1 822 112	5.1
2. Ponato Oy	1 501 300	4.2
3. Hulkko Juha	1 419 370	4.0
4. Mutual Pension Insurance Company Varma	1 365 934	3.8
5. Mutual Pension Insurance Company Ilmarinen	1 296 529	3.6
6. Investment Fund Taaleritehdas Mikro Markka	700 000	2.0
7. Hilden Kai Jalmari	658 000	1.8
8. Mutual Pension Insurance Company Elo	503 000	1.4
9. Hirvilammi Hannu	427 763	1.2
10. Aktia Nordic Micro Cap Investment Fund	410 389	1.2

At the end of June 2023, Bittium Corporation had 22,064 shareholders. The ten largest shareholders owned 28.3 percent of the shares. Private ownership was 69.8 percent. The percentage of foreign and nominee-registered shareholders was 4.5 percent at the end of June 2023.

Flagging Notifications

During the review period, there were no changes related to ownership relationships that would have led to the notification obligation required by Section 2:9 of the Securities Market Act, i.e., the so-called flagging notification.

Decisions of the Annual General Meeting 2023

The Annual General Meeting of Bittium Corporation was held on April 12, 2023, at 1:00 pm (CEST+1) at the University of Oulu, Saalastinsali, Pentti Kaiteran katu 1, 90570 Oulu, Finland. The Annual General Meeting approved the annual accounts and the consolidated financial statements for the year 2022, discharged the company's members of the Board of Directors and the CEO from liability for the financial year ended December 31, 2022, and gave an advisory resolution on the approval of the remuneration report for governing bodies. The Annual General Meeting supported all the proposals of the Board of Directors and the three largest shareholders, in accordance with the notice to the Meeting.

Use of the Profits Shown on the Balance Sheet and Authorizing the Board of Directors to Decide on the Distribution of Dividend

In accordance with the proposal of the Board of Directors, the Annual General Meeting decided that, based on the balance sheet for the financial year January 1, 2022 – December 31, 2022, a dividend of EUR 0.05 per share will be distributed. The dividend was paid to a

shareholder who, on the record date for the dividend payment, April 14, 2023, was registered in the company's shareholders' register maintained by Euroclear Finland Ltd. The dividend was paid on April 21, 2023. All the shares in the company were entitled to the dividend, except for own shares possibly held by the company on the dividend record date.

Election and Remuneration of the Members of the Board of Directors

The Annual General Meeting 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.

The Annual General Meeting resolved that the following monthly remuneration will be paid to the members of the Board of Directors: to the Chairman of the Board of Directors EUR 3,150 and to the other members of the Board of Directors EUR 1,800 each. In addition, the members of the Board of Directors are entitled to a fee for attending Board meetings as follows: Chairman of the Board EUR 875 per meeting and other members of the Board of Directors EUR 500 per meeting. In addition, the members of the Board of Directors are entitled to a fee for attending the meetings of the Board committees as follows: the Chairman of the Committee EUR 600 per meeting and the other members of the Committee EUR 400 per meeting. Travel expenses of the members of the Board of Directors shall be reimbursed in accordance with the company's travel policy.

50 percent of the total monthly remuneration of the members of the Board of Directors will be paid in a single instalment in Bittium Corporation's shares to be purchased at a price formed in public trading or through a share issue or in special circumstances, if for some reason the remuneration cannot be paid in shares, entirely in cash. The shares will be acquired according to the share purchase program of the company. A member of the Board of Directors may not transfer the shares received as remuneration before his/her membership in the Board of Directors has ended.

At its organizing meeting held on April 12, 2023, the Board of Directors elected Mr. Erkki Veikkolainen as the Chairman of the Board of Directors. Further, the Board of Directors resolved that it will continue to have an Audit Committee. Ms. Riitta Tiuraniemi (Chairman of the Committee), Mr. Petri Toljamo, and Mr. Veli-Pekka Paloranta were elected as members of the Audit Committee.

Election and Remuneration of the Auditor

Ernst & Young Oy, authorized public accountants, was re-elected auditor of the company for a term of office ending at the end of the next Annual General Meeting. Ernst & Young Oy has notified that Mr. Jari Karppinen, APA, will act as the principal auditor. It was decided that the remuneration to the auditor shall be paid against the auditor's reasonable invoice.

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

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

The number of own shares to be repurchased shall not exceed 3,500,000 shares, which corresponded to approximately 9.80 percent of all the shares in the company as at the date of the General Meeting. Based on the authorization, the company's own shares may only be repurchased with unrestricted equity. The company's own shares may be repurchased at a price formed in public trading on the date of the repurchase or otherwise at a price formed on the market. The Board of Directors decides how the shares will be repurchased. Among other things, derivatives may be used in the acquisition. Own shares may be repurchased otherwise than in proportion to the shareholdings of the shareholders (directed repurchase).

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

The authorization is valid until June 30, 2024.

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

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

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

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

The authorization is valid until June 30, 2024.

Significant Events after the Reporting Period

There were no significant events after the reporting period.

Risks and Uncertainties

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

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

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

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

Business Related Risks

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

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

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

Financing Risks

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

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.

Sustainability and Corporate Responsibility

Bittium 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 four 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.

Sustainability Report 2022 was published in connection with the Annual Report on March 20, 2023.

In response to the effects of the CSRD directive (such as the collection of information regarding products), the company has developed the management of the environmental information required during the product's life cycle, while also preparing for future life cycle information reporting requirements such as the digital product passport. In 2024, the company will report the results of the first risk assessment in accordance with the requirements of the 2023 CSRD directive.

More information about Bittium's sustainability can be found on the company's internet pages at www.bittium.com.

Market Outlook

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

The global disruption in the availability of electronic components that followed the pandemic has had a slowing effect on the development of the company's business and sales during the years 2021, 2022, and 2023. The market is slowly recovering, and the company believes that the component shortage will recede during 2023. The world's geopolitical situation, problems in logistics chains, inflation and deteriorating economic development create uncertainty in the market outlook.

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

Defense, Public Safety, and Information Security Markets

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

Telecommunication and Digitalization

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

Medical ECG, EEG, and Sleep Apnea Remote Monitoring Market

- The medical technology market is undergoing significant development in patient care, especially outside hospitals. There is an increasing focus on the prevention of diseases and health problems through early diagnosis and the discharge of patients at an earlier stage to reduce hospital and treatment days. These actions significantly increase efficiency in health care processes and lower costs.
- A prerequisite for early hospital discharge is the enabling of accurate and precise follow-up and measurement opportunities in home conditions, which would be enabled through remote monitoring. Remote monitoring and remote diagnostics also enable specialists' diagnoses regardless of time and place. Also, evolving artificial intelligence-based algorithms become more common in supporting physicians in making diagnoses. Remote monitoring and remote diagnostics make it possible and faster to obtain more accurate diagnoses, which, in turn, speeds up the start of the right kind of treatment. The market change will enable several new providers to join the overall care service chain, without compromising the quality of specialist services.
- For measuring biosignals, as well as remote monitoring and diagnostics, Bittium provides its Bittium Faros™ product family for remote ECG monitoring, Bittium BrainStatus™ for measuring the electrical activity of the brain, home sleep apnea test solution Bittium Respiro™, and different kinds of diagnostics software offered by Bittium.
- 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.
- Regulation by the authorities has a strong role in bringing medical devices to the market. The requirements vary for different countries, and the processes are long-term. Bittium has achieved a new MDR standard level medical device approval in the EU region for the Bittium Respiro™ product family that measures sleep apnea. The company has also applied for a medical device 510k clearance by the US Food and Drug Administration (FDA) for the Respiro product family, and currently estimates that it will

receive the license in 2024. However, the schedule may be affected by possible additional investigations determined by the FDA authority. Bittium has several medical device approvals in progress in different countries.

Annual Report, Sustainability Report, Corporate Governance and Remuneration Report 2022

Bittium Corporation published the 2022 Annual Report including the Financial Statements, Report by the Board of Directors, and Auditor's Report, as well as Corporate Governance Statement and Sustainability Report on March 20, 2023.

The publications are available on the company's website at <https://www.bittium.com> in both Finnish and English. The annual report, sustainability report and corporate governance can also be found at <https://annualreport.bittium.com>.

Financial Calendar 2023

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 reviews is lighter than the structure of financial reports.

- Financial Statement Bulletin 2022: February 10, 2023, at 8.00 am (CET+1)
- Business Review January-March 2023: April 27, 2023, at 8.00 am (CET+1)
- Half Year Financial Report January-June 2023: August 4, 2023, at 8.00 am (CEST+1)
- Business Review January-September 2023: October 20, 2023, at 8.00 am (CET+1)

Annual Report 2022 including the Financial Statements, Report by the Board of Directors, and Auditor's Report, as well as Corporate Governance Statement and Sustainability Report was published on March 20, 2023.

The actual general meeting was held on Wednesday, April 12, 2023, at 1:00 pm (CEST+1).

Bittium will hold a Capital Markets Day 2023 for analysts, investors, and media on October 30, 2023.

Invitation to a Press Conference

Bittium will hold a webcast regarding the Half-Year Financial Report January-June 2023 for media, analysts, and institutional investors on Friday, August 4, 2023, at 9.00 am (CET+1). The conference will be held in English.

Link to the webcast: <https://bittium.videosync.fi/h1-2023>

Recording the webcast and the presentation will be available after the conference on Bittium's website at www.bittium.com/investors.

Oulu, August 4, 2023

Bittium Corporation
The Board of Directors

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Bittium Corporation Condensed Financial Statements and Notes January – June 2023

(unaudited)

The Half-year Financial Report has been prepared in accordance with IAS 34 Interim Financial Reporting.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (MEUR)	1-6/2023	1-6/2022	1-12/2022
Continuing operations	6 months	6 months	12 months
NET SALES	35.6	41.0	82.5
Other operating income	1.6	1.4	2.7
Work performed by the undertaking for its own purpose and capitalized	0.2	0.4	0.5
Raw materials	-8.1	-9.0	-20.2
Personnel expenses	-20.3	-21.6	-39.5
Depreciation	-4.8	-5.3	-10.7
Other operating expenses	-7.3	-7.0	-14.8
Share of profits in associated companies	0.0	-0.2	-0.2
OPERATING PROFIT (LOSS)	-3.2	-0.2	0.3
Financial income and expenses	-0.4	-0.4	-0.8
PROFIT BEFORE TAX	-3.6	-0.7	-0.4
Income tax	-0.0	0.0	0.7
PROFIT FOR THE PERIOD FROM CONTINUING OPERATIONS	-3.6	-0.6	0.3
Discontinued operations			
Profit for the year from discontinued operations			
PROFIT FOR THE PERIOD	-3.6	-0.6	0.3
Other comprehensive income:			

Items that may be reclassified subsequently to the statement of income			
Exchange differences on translating foreign operations	-0.0	0.4	0.2
Other comprehensive income for the period total	-0.0	0.4	0.2
TOTAL COMPREHENSIVE INCOME FOR THE PERIOD	-3.7	-0.3	0.5
Profit for the year attributable to			
Equity holders of the parent	-3.6	-0.6	0.3
Total comprehensive income for the period attributable to			
Equity holders of the parent	-3.7	-0.3	0.5
Earnings per share from continuing operations, EUR			
Basic earnings per share	-0.102	-0.018	0.007
Diluted earnings per share	-0.102	-0.018	0.007
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	-0.102	-0.018	0.007
Diluted earnings per share	-0.102	-0.018	0.007
Average number of shares, 1000 pcs	35 702	35 702	35 702
Average number of shares, diluted, 1000 pcs	35 702	35 702	35 702

CONSOLIDATED STATEMENT OF FINANCIAL POSITION (MEUR)	June 30. 2023	June 30. 2022	Dec. 31. 2022
ASSETS			
Non-current assets			
Property, plant, and equipment	19.3	20.2	19.7
Goodwill	5.8	5.8	5.8
Intangible assets	51.4	49.9	50.1
Other financial assets	1.1	1.1	1.1
Other non-current receivables	0.8	1.0	0.9
Deferred tax assets	7.4	6.8	7.4
Non-current assets total	86.0	84.8	85.0
Current assets			
Inventories	27.0	21.6	24.2
Trade and other receivables	41.5	36.9	41.4
Financial assets at fair value through profit or loss		5.7	5.7
Cash and short-term deposits	6.8	16.4	13.3

Current assets total	75.2	80.5	84.6
TOTAL ASSETS	161.2	165.3	169.7
EQUITY AND LIABILITIES			
Equity attributable to equity holders of the parent			
Share capital	12.9	12.9	12.9
Invested non-restricted equity fund	26.0	26.0	26.0
Translation difference	1.3	1.5	1.3
Retained earnings	69.9	74.7	75.6
Total equity	110.0	115.1	115.8
Non-current liabilities			
Deferred tax liabilities	0.1	0.2	0.2
Provisions			
Interest-bearing liabilities	1.7	21.2	21.3
Other non-current liabilities	0.3	0.2	0.2
Advances received			
Non-current liabilities total	2.1	21.6	21.7
Current liabilities			
Trade and other payables	23.4	23.6	26.4
Provisions	4.5	3.9	4.7
Interest-bearing loans and borrowings	21.1	1.1	1.1
Current liabilities total	49.0	28.7	32.2
Total liabilities	51.1	50.3	53.9
TOTAL EQUITY AND LIABILITIES	161.2	165.3	169.7

CONSOLIDATED STATEMENT OF CASH FLOWS (MEUR)	1-6/2023	1-6/2022	1-12/2021
	6 months	6 months	12 months
CASH FLOW FROM OPERATING ACTIVITIES			
Profit for the year from continuing operations	-3.6	-0.6	0.3
Profit for the year from discontinued operations			
Adjustment of accrual basis items	4.9	7.1	11.5
Change in net working capital	-5.5	0.0	-2.9
Interest paid on operating activities	-0.7	-0.4	-0.9
Interest received from operating activities	0.4	0.0	0.1
Income taxes paid	-0.0	-0.0	-0.0
NET CASH FROM OPERATING ACTIVITIES	-4.6	6.0	8.0
CASH FLOW FROM INVESTING ACTIVITIES			
Purchase of property, plant and equipment	-0.3	-0.4	-1.0

Purchase of intangible assets	-4.5	-3.3	-7.1
Purchase of investments/associated companies			
Sale of investments/associated companies			
Sale of property, plant, and equipment			
Sale of intangible assets			
NET CASH FROM INVESTING ACTIVITIES	-4.7	-3.7	-8.0
CASH FLOW FROM FINANCING ACTIVITIES			
Borrowings			
Repayment of borrowing			
Payment of finance liabilities	-0.7	-0.7	-1.4
Dividend paid	-1.8	-1.4	-1.4
Purchases of own shares	-0.4	-0.1	-0.1
NET CASH FROM FINANCING ACTIVITIES	-2.9	-2.3	-3.0
NET CHANGE IN CASH AND CASH EQUIVALENTS	-12.2	0.0	-3.0
Cash and cash equivalents at beginning of period	19.0	22.0	22.0
Cash and cash equivalents at end of period	6.8	22.0	19.0

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY (MEUR)

A = Share capital

B = Invested non-restricted equity fund

C = Translation difference

D = Retained earnings

E = Non-controlling interests

F = Total equity

	A	B	C	D	E	F
Shareholders equity on Jan. 1, 2022	12.9	26.0	1.1	76.8		116.8
Comprehensive income for the period						
Profit/loss for the period				-0.6		-0.6
Exchange differences on translating foreign operations			0.4			0.4
Total comprehensive income for the period			0.4	-0.6		-0.3
Transactions between the shareholders						
Distribution of dividends				-1.4		-1.4
Purchases of own shares				-0.1		-0.1
Share-related compensation				0.1		0.1

Total transactions between the shareholders				-1.5		-1.5
Other changes				-0.0		-0.0
Shareholders equity on June 30, 2022	12.9	26.0	1.5	74.7		115.1

	A	B	C	D	E	F
Shareholders equity on Jan. 1, 2023	12.9	26.0	1.3	75.6		115.8
Comprehensive income for the period						
Profit/loss for the period				-3.6		-3.6
Exchange differences on translating foreign operations			-0.0			-0.0
Total comprehensive income for the period			-0.0	-3.6		-3.7
Transactions between the shareholders						
Distribution of dividends				-1.8		-1.8
Purchases of own shares				-0.4		-0.4
Share-related compensation				0.2		0.2
Total transactions between the shareholders				-2.0		-2.0
Other changes				-0.0		-0.0
Shareholders equity on June 30, 2023	12.9	26.0	1.3	69.9		110.0

NOTES TO THE HALF YEAR FINANCIAL REPORTING

ACCOUNTING PRINCIPLES FOR THE HALF YEAR FINANCIAL REPORTING:

The Half Year Financial Report has been prepared in accordance with IAS 34 Interim Financial Reporting. Bittium Corporation has applied the same accounting principles in the preparation of this Half Year Report as in its Financial Statements for 2022, except for the adoption of new standards and interpretations effective during 2023. The forthcoming revisions or amendments of the standards are not expected to have significant impact on the consolidated financial statements.

ALTERNATIVE PERFORMANCE MEASURES

In this report, Bittium uses alternative performance measures in accordance with the guidelines issued by the European Securities and Markets Authority (ESMA). Alternative performance measures are derived from performance measures reported in accordance with International Financial Reporting Standards (IFRS). Alternative performance measures are used to better reflect the operational business performance and to enhance comparability between financial periods. They are reported in addition to, but not substituting, the performance measures reported in accordance with the IFRS. The definitions of the common alternative performance measures are listed below.

EBITDA = Operating profit + depreciations

Net gearing % =
$$\frac{\text{Interest-bearing liabilities - cash and deposits and short-term investments} \times 100}{\text{Total equity}}$$

Equity per share =
$$\frac{\text{Equity attributable to equity holders of the parent}}{\text{Share issue adjusted number of the shares at the end of the period}}$$

SEGMENT-INFORMATION (MEUR)

Bittium Corporation does not have segments that require reporting according to IFRS 8 standard.

NET SALES OF GEOGRAPHICAL AREAS (MEUR)	1-6/2023	1-6/2022	1-12/2022
	6 months	6 months	12 months
Net sales			
Europe	24.9	30.1	57.9
Americas	10.2	10.4	23.3
Asia	0.5	0.5	1.3
Net sales total	35.6	41.0	82.5

RELATED PARTY TRANSACTIONS	1-6/2023	1-6/2022	1-12/2022
	6 months	6 months	12 months
Employee benefits for key management and stock options expenses total, continuing operations	1.1	0.9	1.6

SHARE-BASED REMUNARATION OF THE MANAGEMENT

The Board of Directors of Bittium Corporation has decided on the establishment of a one-off fixed Matching Share Plan for the Chief Executive Officer (CEO) of Bittium (below also the "Plan"). The fixed Matching Share Plan is a one-off plan, in which the CEO is expected to purchase shares of Bittium Corporation with at least the value of 200,000 euros at a price formed in public trading on Nasdaq Helsinki. Bittium Corporation will match the share investment by way of the CEO receiving matching shares without consideration with a net value of 100,000 euros. The matching shares will be paid in listed shares of Bittium Corporation. The matching shares received by the CEO based on the Plan will be subject to a transfer restriction (lock-up) of three years.

Form of the reward	Shares
Grant date	27.4.2023
Total expenses of the reward at the most, EUR million	0.1
Execution	In shares

The Board of Directors of Bittium Corporation has decided on the establishment of a new share-based long-term incentive scheme for the Company's management. It comprises a Performance Share Plan ("PSP"). The PSP consists of three annually commencing three-year

performance share plans, PSP 2023-2025, PSP 2024-2026 and PSP 2025-2027, each with a one-year performance period, which is followed by the payment of the share reward and a two-year transfer restriction period. The commencement of the following two plans, PSP 2024-2026 and PSP 2025-2027, is, however, subject to a separate Board decision. Eligible to participate in the first plan, PSP 2023-2025, are the members of Bittium's Management Group. The performance measure based on which the potential share reward under the first plan, PSP 2023-2025, will be paid is the revenue growth of Bittium. A precondition for the payment of the share reward is, in addition, that the employment relationship of the participant with Bittium continues at the time the reward is paid. The potential reward will be paid in shares of Bittium and in cash.

PSP 2023-2025	
Form of the reward	Shares
Grant date	22.6.2023
Total amount of the shares at the most	250 000
Share price at the grant date, EUR	4.365
Total expenses of the reward at the most, EUR million	1.1
Execution	In shares and cash

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME BY QUARTER (MEUR) Continuing operations	4-6/2023	1-3/2023	10-12/2022	7-9/2022	4-6/2022
	3 months	3 months	3 months	3 months	3 months
NET SALES	20.7	14.9	27.6	13.8	22.7
Other operating income	0.8	0.8	0.9	0.5	0.7
Work performed by the undertaking for its own purpose and capitalized	0.1	0.1	0.0	0.1	0.3
Raw materials	-5.0	-3.1	-8.2	-3.1	-5.9
Personnel expenses	-10.1	-10.2	-9.9	-8.0	-10.4
Depreciation	-2.3	-2.5	-2.9	-2.5	-2.6
Other operating expenses	-3.8	-3.6	-4.7	-3.1	-3.8
Share of profits in associated companies	0.0	0.0	0.0	-0.0	-0.1
OPERATING PROFIT (LOSS)	0.3	-3.5	3.0	-2.4	0.8
Financial income and expenses	-0.2	-0.2	-0.1	-0.2	-0.2
PROFIT BEFORE TAX	0.1	-3.7	2.8	-2.6	0.6
Income tax	-0.0	-0.0	0.7	0.0	0.0
PROFIT FOR THE PERIOD FROM CONTINUING OPERATIONS	0.1	-3.7	3.5	-2.6	0.6
Discontinued operations					
Profit for the period from discontinued operations					
PROFIT FOR THE PERIOD	0.1	-3.7	3.5	-2.6	0.6
Other comprehensive income	0.0	-0.1	-0.5	0.3	0.3
TOTAL COMPREHENSIVE INCOME FOR THE PERIOD	0.1	-3.8	3.0	-2.3	0.9

Profit for the period attributable to:					
Equity holders of the parent	0.1	-3.7	3.5	-2.6	0.6
Total comprehensive income for the period attributable to:					
Equity holders of the parent	0.1	-3.8	3.0	-2.3	0.9

CONSOLIDATED STATEMENT OF CASH FLOWS BY QUARTER	4-6/2023	1-3/2023	10-12/2022	7-9/2022	4-6/2022
	3 months	3 months	3 months	3 months	3 months
Net cash from operating activities	-5.7	1.1	0.1	2.0	2.9
Net cash from investing activities	-2.3	-2.4	-2.4	-2.0	-2.0
Net cash from financing activities	-2.5	-0.4	-0.3	-0.4	-1.9
Net change in cash and cash equivalents	-10.6	-1.6	-2.7	-0.3	-1.0

FINANCIAL PERFORMANCE RELATED RATIOS	1-6/2023	1-6/2022	1-12/2022
	6 months	6 months	12 months
STATEMENT OF COMPREHENSIVE INCOME (MEUR)			
Net sales	35.6	41.0	82.5
Operating profit (loss)	-3.2	-0.2	0.3
Operating profit (loss), % of net sales	-9.1	-0.6	0.4
Profit before taxes	-3.6	-0.7	-0.4
Profit before taxes, % of net sales	-10.2	-1.6	-0.5
Profit for the period from continuing operations	-3.6	-0.6	0.3
PROFITABILITY AND OTHER KEY FIGURES			
Interest-bearing net liabilities, (MEUR)	16.1	0.3	3.4
Net gearing, %	14.6	0.3	3.0
Equity ratio, %	69.5	70.9	69.7
Gross investments, (MEUR)	5.9	4.5	9.5
Average personnel during the period, continuing operations	613	648	641
Personnel at the period end, continuing operations	616	649	625

AMOUNT OF SHARE ISSUE ADJUSTMENT (1.000 pcs)	Jun. 30. 2023	Jun. 30. 2022	Dec. 31. 2022
At the end of period	35 702	35 702	35 702
Average for the period	35 702	35 702	35 702
Average for the period diluted with stock options	35 702	35 702	35 702

STOCK-RELATED FINANCIAL RATIOS (EUR)	1-6/2023	1-6/2022	1-12/2022
	6 months	6 months	12 months
Earnings per share from continuing operations. EUR			
Basic earnings per share	-0,102	-0,018	0.007
Diluted earnings per share	-0.102	-0.018	0.007
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	-0,102	-0,018	0.007
Diluted earnings per share	-0.102	-0.018	0.007
Equity *) per share	3.08	3.22	3.24
*) Equity attributable to equity holders of the parent			

MARKET VALUES OF SHARES (EUR)	1-6/2023	1-6/2022	1-12/2022
	6 months	6 months	12 months
Highest	4.55	6.08	6.08
Lowest	3.85	4.46	3.47
Average	4.20	5.22	4.71
At the end of period	4.21	5.12	3.98
Market value of the stock, (MEUR)	150.3	182.8	141.9
Trading value of shares, (MEUR)	8.5	28.0	44.0
Number of shares traded, (1.000 pcs)	2 021	5 359	9 346
Related to average number of shares %	5.7	15.0	26.2

SECURITIES AND CONTINGENT LIABILITIES (MEUR)	Jun. 30. 2023	Jun. 30. 2022	Dec. 31. 2022
AGAINST OWN LIABILITIES			
Floating charges			
Mortgages are pledged for liabilities totaled			
Guarantees	3.0	3.0	3.0
Rental liabilities			
Falling due in the next year	0.1	0.1	0.1
Falling due after one year			

Other contractual liabilities			
Falling due in the next year	2.2	2.1	2.5
Falling due after one year	0.4	0.3	0.7
Material purchase commitments	12.0	17.3	13.9

NOMINAL VALUE OF CURRENCY DERIVATIVES (MEUR)	Jun. 30. 2023	Jun. 30. 2022	Dec. 31. 2022
Foreign exchange forward contracts			
Market value	0.0	-0.1	0.0
Nominal value	1.5	2.5	1.4