

Sustainability at Bittium in 2021



Bittium

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Sustainability Highlights in 2021

COMPETENCE DEVELOPMENT

Days of training
3.8 days /
employee / year



99.1%

WASTE RECYCLING RATIO

46.9

CUSTOMER SATISFACTION SURVEY NPS

70%

EMPLOYEE SURVEY RESPONSE RATE

45.5

CUSTOMER PROJECT SATISFACTION SURVEY NPS

↑ 3.0%

ELECTRICITY CONSUMPTION

↘ 719
tCO₂e

TOTAL CARBON FOOTPRINT
1,096 kg CO₂e
/ person / year



SHARE OF SOLAR POWER

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



CEO's Sustainability Review

Bittium acts as a responsible corporate citizen in the surrounding society. We are a reliable local partner and employer that operates in accordance with common operating principles and seeks policies and solutions that promote sustainable development. To support this, in the autumn of 2021 we prepared a new sustainability program for the years 2022–2025. Our sustainability will be based on three key themes: our employees, customers and information security, and the environment. This sustainability report, concerning the year 2021, is based on the indicators and targets of the existing sustainability program.

A responsible business practice lays the foundation for trust, which is nurtured by implementing Bittium's values in actions. Our operations are very regulated, so huge part of our sustainability is based on confidentiality and ensuring security. Our industry is full of ever-changing standards and regulations that we obey and be up to date with changes. This is one of the basic conditions for our operation.

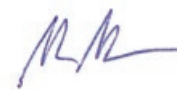
The second year of the coronavirus pandemic has, in a good way, forced us to continue to reform the company's policies. Taking care of the well-being of our staff has been high on our work list, as about 70 per cent of our employees have been working remotely from home during the year. We have maintained our participatory and conversational culture through various measures and will continue to invest in good leadership.

The global shortage of components also affects Bittium. We have mapped numerous Finnish and European suppliers to obtain the necessary components for our products. For some critical components, deliveries have been relocated from afar to Europe and even Finland, closer to us.

At Bittium, ecology is the starting point for all product design and development, which is why we constantly pay more attention to the principles of the circular economy. We aim to comply with the EU's Ecodesign Directive, which aims to improve the energy efficiency of products by integrating en-

vironmental considerations and life-cycle thinking into the product design phase. The directive is now being extended to include the effects of software production on the life-cycle assessment of a product's ecological footprint. Bittium has participated in the authority work of this directive both at the Finnish and EU level.

In 2021, we achieved the goals we set for environmental sustainability. At its best, 13.5 per cent of the utilized electricity at the Oulu premises came from solar energy. Our total carbon footprint was 718,690 kg CO₂e, which is a decrease of about 5% from a year ago. The reduction in the carbon footprint was due to a significant reduction in air travel caused by the coronavirus pandemic and a change in the calculation method for waste emissions.



Hannu Huttunen
CEO

Bittium in Brief

Description of Operations

Bittium is a Finnish technology company that specializes in both the development of reliable and secure communication and connectivity solutions and the development of products and services for measuring and monitoring biosignals outside the hospital. Bittium has over 35 years of in-depth expertise in various technologies. Bittium offers its customers innovative products and solutions based on its product platforms, as well as product development services.

Sustainability is present in Bittium's operations throughout the life cycle of its products, in procurement chains and in the way the company creates 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.

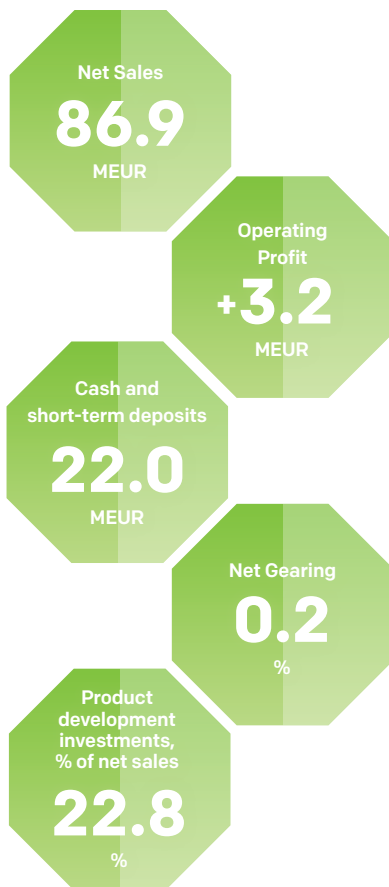
Bittium's business is divided into three product and service areas: Defense & Security, Connectivity Solutions and Medical Technologies.

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, aiming at strengthening the national security of independent countries.

In the Connectivity Solutions product and service area, Bittium provides its customers with R&D services and wireless connectivity solutions for the development of new innovative products in a secure and evolving wireless environment.

In the Medical Technologies product and service area, Bittium aims at promoting better health in society by providing products and complete solutions for the healthcare market in biosignals remote monitoring and diagnostics. This is based on the company's long experience and deep knowledge of biosignal measurement, wireless communications and security technology.

Bittium has made significant investments in the future by considerably increasing R&D investments in in-house products and solutions. These investments provide an excellent foundation for future growth. The company will continue to invest in product development and the development of its operations in accordance with its strategy to enable international growth. Bittium also continues to search for inorganic growth opportunities in all of its product and service areas. The company is prepared to invest in acquisitions that strengthen its growth strategy.





Our Value Creation Model

Our Key Resources

People

- Almost 700 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 the society.



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



Outputs and Impacts

Customers, Products and Services

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

Society and the Environment

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

Innovative Experts

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

Investors

- A profitable and stable investment

The Megatrends Affecting the Business

Bittium's operations are strongly influenced by digitalization, the various phenomena of which create both threats and opportunities for the business. The digital revolution in society continues and investment in smart devices, people and processes is growing. Digitalization increases efficiency and allows for a better allocation of resources.

Rapid Technological Development as an Enabler of Digitalization

The rise of embedded software, the management of complex systems, and the rapid development of technology create opportunities to provide added value to Bittium's customers. To maintain a competitive edge, Bittium must continue intensifying the 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 used in developing Bittium's operations include robotic process 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 Aging Population

The aging of the population and population growth make the digitalization of healthcare 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 is one of 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 specific sustainability working group, that develops, monitors and evaluates issues related to sustainability. The working group is responsible for managing and sounding sustainability risks, as well as reporting on the company’s sustainability. The working group has six (6) members: CEO; Chief Legal Officer; Vice President, Communications and Marketing; 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 annually.

The Management Group of Bittium 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 and prepares sustainability matters regularly and when necessary.

The Board of Directors of Bittium Corporation discusses sustainability issues on the basis of the Management Group’s proposals and approves annually the company’s sustainability report.

The sustainability report describes the applicable methods that guarantee a sufficient

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

Bittium’s Ethical Principles and Code of Conduct

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

1) Anti-corruption

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 ambiguities in the operations of its partners.

The company provides both our external and internal stakeholders with a channel for reporting violations of anti-corruption rules. There were no cases of corruption reported to Bittium in 2021.

2) Information security and data protection

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

Sustainability Management at Bittium



3) Fair business, advertising and competition

Bittium follows the rules on fair business, advertising and competition. The company uses various methods to secure the 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 procurement is also an essential part of our sustainable business operations. The principles of sustainable purchasing have been described in greater detail in section 'Confidential customer relationships and secure products'.

Stakeholder Cooperation

Bittium's operations affect many different stakeholders. Understanding their views and expectations is important for our 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. Our largest stakeholders include our employees, customers, different actors, partners, the authorities and other controlling

actors, shareholders, students and different schools and academies, as well as different communities. The company's stakeholder-related activities are guided by Corporate Governance and Code of Conduct.

In 2021, the coronavirus pandemic had a significant impact on the cooperation with stakeholders. The travel restrictions and quarantines have prevented face-to-face meetings, and communication over the internet has become the new norm.

Personnel

Bittium arranges several different staff events each year where our employees get the opportunity to ask questions and give feedback. The management's physical presence at these events and the opportunity to ask questions have constituted an important part of communication. As the coronavirus pandemic has been prevailing, all personnel events were held online to safeguard the personnel's health and the continuity of business. The situation was made easier by the fact that Bittium is an international player. Therefore, online meetings have been routine for us for years. Thus, arranging online events for the entire staff did not involve much extra effort or costs. Despite the lack of physical presence, the dialogue between management and personnel on these occasions has remained active.

In addition to staff events, the employees can give feedback through the annual anonymous employee survey. Equal treatment and open interaction are important to the employees. They expect Bittium to offer interesting and meaningful work and opportunities for professional growth. In addition to the annual personnel surveys, the company surveys the well-being of its personnel with a once-a-month Pulse survey. Pulse allows

for a faster response to any grievances that have arisen. The results of both surveys are available for personnel to view on the company's intranet.

Customers

Bittium receives constant feedback from the customers, primarily by continuously staying in touch with them and through various annual surveys. The surveys are arranged online. The used Scrum and Agile methods and the supporting online systems (as real-time as possible) allow ongoing monitoring and open dialogue. This enables Bittium to quickly react to potential problems. Bittium's customers value competitive and reliable products and services as well as sustainable and real-time approach to operations. The company's major customers are leading international players in their respective fields. Therefore, the travel restrictions imposed in 2021 as a result of the coronavirus pandemic have had some impact on Bittium's communications with them. The company has had to take care of many matters online that would normally be discussed face to face. These include, for instance, product and project inspections or approvals.

Suppliers and partners

When it comes to our suppliers and other partners, Bittium has often worked with them in close cooperation for a long time following established rules and ways of working. Constant communication enables open dialogue. The company's suppliers and partners expect fair and sustainable operations and long-term cooperation. Bittium expects suppliers and partners to work in a sustainable way, and monitors this on a regular basis. The coronavirus pandemic did not have a material effect on cooperation with suppliers and partners.

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 our compliance with the laws and regulations. Applying them to Bittium's business operations requires open and ongoing interaction with the authorities. The company has always mainly engaged in virtual communication with the authorities. Therefore, the coronavirus pandemic did not have a material effect on cooperation in 2021.

Local cooperation

As part of Bittium's sustainable corporate citizenship, the company actively collaborates with different communities. Bittium meets the expectations of different communities 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. Restrictions on gatherings and meetings caused by the coronavirus pandemic prevented the company from arranging workplace visits or admitting students to practical training during 2021. At the end of 2021, Bittium donated 50,000 euros to the University of Oulu's technical research.

Research and development cooperation with companies and research institutions broadens Bittium's expertise and makes it possible to mutually promote development. This cooperation is mainly carried out online, and the coronavirus pandemic had no material effect on the progress of cooperation.

Shareholders and investors

Shareholders, investors and analysts expect Bittium to create long-term value and act responsibly. Bittium meets with analysts following the company on a regular basis and participates in events for various institutional investors. At the annual general meeting, shareholders have the opportunity to meet and discuss with the company's management and the members of the Board of Directors. Due to travel and gathering restrictions caused by the coronavirus pandemic, the 2021 Annual General Meeting was held again via the Internet instead of a physical opportunity. Similarly, other investor and analyst meetings and events were held online during the past year. In 2021, the company joined a moderated investor forum to improve and increase communication with investors. It is pursued that the open and transparent discussion will provide answers to the questions that concern investors and thus improve the understanding of the company's business.

Sustainability Program 2020–2022

Bittium is a global technology company that aims to adapt its deep knowledge to deliver superior, socially beneficial technical innovations that enhance connectivity, bring safety and promote health-care in society. Bittium's sustainability program is based on the company strategy, values, stakeholders' expectations and the megatrends in the operating environment. It is part of the company's organizational culture, its way of acting and creating value for the surrounding society.

Bittium's sustainability program relies on the materiality analysis conducted in 2019, on the basis of which the focus areas of sustainability were defined. The program is composed of the development targets and actions of the focus areas as well as the related performance indicators. Bittium continuously monitors and improves its sustainability efforts. The achievement of the targets specified in the sustainability program is monitored annually against various performance indicators. Progress with the program and toward the targets is reported annually in Bittium's sustainability report.



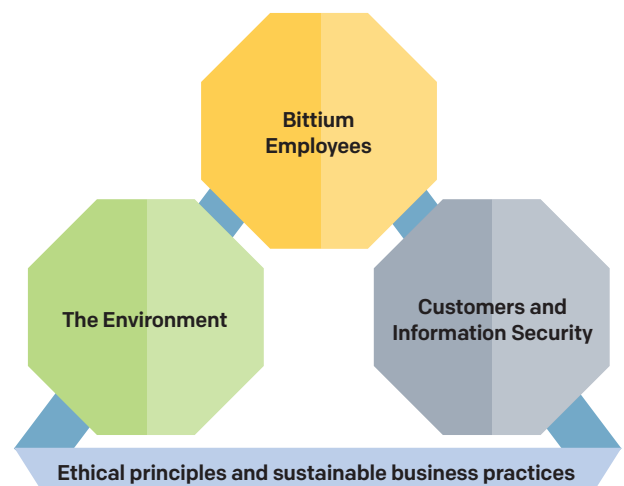
The sustainability program and its targets are divided into focus areas.

Sustainability Program 2022–2025

In the second half of 2021, Bittium created a new sustainability program for the period 2022–2025. While the previously defined focus areas were not changed, they were regrouped. Going forward, Bittium's sustainability will be based on three key themes: Bittium employees, customers and information security, and the environment. Ethical principles and sustainable business practices create the foundation for trust, which is maintained by putting Bittium's values into action.

The sustainability program will be launched internally in the first quarter of 2022.

The sustainability actions taken in 2021 are reported in accordance with the sustainability program 2020–2022.



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 governments.

Legal compliance is the basic premise of economic sustainability. 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.

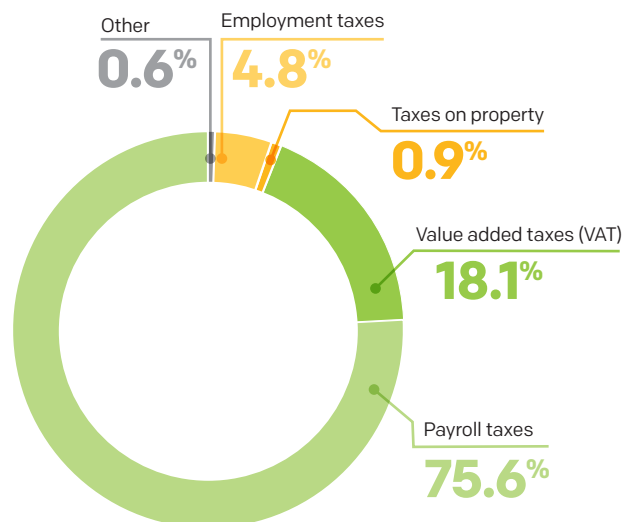
Bittium's tax strategy is to support business decisions and ensure their proper execution also from the perspective of taxes. Tax planning supports business efficiency and productivity, creating added value for shareholders and ensuring regulatory compliance. Bittium's tax planning is not aggressive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

Bittium's tax strategy aims to ensure 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 citizenship is part of Bittium's values. Accordingly, the quality of the company's tax processes is

Tax Footprint 2021

MEUR

	2021	2020
Taxes collected		
Value added taxes (VAT)	-2.4	-2.2
Payroll taxes	-10.0	-9.6
Total	-12.4	-11.8
Taxes borne		
Employment taxes	-0.6	-0.5
Taxes on property	-0.1	-0.1
Total	-0.8	-0.7
Taxes total	-13.2	-12.5



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 Large Taxpayers' Office of the Finnish 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.

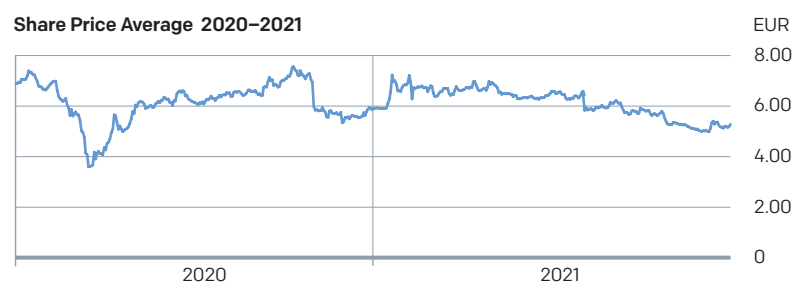
In 2021, Bittium was involved in the role of a funding provider and research partner in several EU cooperation projects (for example, ITEA4, Horizon2020 and EDIDP) and national projects financed by Business Finland. The focus areas of these cooperation projects included technologies that are highly relevant to Bittium's future product and service business, such as various communications solutions for the defense industry and the public authorities, information security solutions related to products and future factories, the development of AI and machine learning methods in fields such as healthcare, and methods and operating practices related to regulatory software development.

In 2021, research and development expenses represented 22.8 percent of net sales (2020: 29.1%). They were mainly allocated to the development of 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, and the development of medical technology products. In 2021, the focus of investments has gradually shifted from tactical communications to the development of new health technology products.

Stakeholders and Economic Impact in 2021



Share Price Average 2020-2021





Sustainability Focus Areas



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.

Sustainability 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.

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





FOCUS AREA #1

Innovative and Developing People

Bittium’s values are trust, courage and innovation. These values are an integral part of everyday work and the company culture of participation and discussion. The company culture is characterized by a flat organization and a low level of hierarchy as well as agility and openness. Bittium’s employees share a passion for technology and learning. Bittium’s innovation requires motivated employees with a high level of well-being, good managerial work and a sense of community. Innovation is supported in various ways, including an

Goals	Performance Measures	Target 2021	Result 2021
Employee well-being and engagement	Results and scope of the employee satisfaction survey.	Developing the employee experience and a sense of community under exceptional circumstances and supporting managerial work.	The average overall score in the employee satisfaction survey decreased to 3.74 (2020: 3.80*).
			The response rate decreased to 70% (2020: 81%).
Competence development	Time spent on training per employee.	Increasing and enabling training and taking special competencies into consideration.	3.8 days/employee.
Developing the employer image	External employer image survey.	Increasing awareness of Bittium and communicating the company’s strengths.	The external employer image survey was postponed to 2022.
	Bittium Employee Survey (BES).	Developing the employer image internally.	In the BES survey, the score for the section “Bittium as a company and employer” was 3.36 on a scale of 1–5 (2020: 3.53).

* In the sustainability report 2020, the average of 2020 was announced 3.83. The figures has been recalculated to be comparable with the 2021 figure.

encouraging and diverse company culture as well as effective working methods and business premises. Ultimately, Bittium's innovative approach is reflected in the company's R&D and work with customers.

In 2021, the company's personnel continued to work remotely under a model where approximately 70 percent of the employees worked remotely as a rule. Ensuring employee well-being and supporting active managerial work have remained key elements of HR management. Monthly Pulse surveys have been used to monitor remote work, the spirit among employees, the efficiency

of work and job satisfaction. The sense of community among the personnel has been strengthened by openly communicating the survey results and also by organizing lectures on well-being at work and sharing experiences. The restrictions concerning travel and visits have remained in place for the most part.

While most of Bittium's employees have continued to work remotely, the company has nevertheless been able to produce critical products and services for its customers in various industries.

Skilled, motivated and committed professionals constitute Bittium's most important resource. The company's strengths as an employer include diverse tasks and development opportunities through work on various technologies, products and projects. Bittium employees have a strong team spirit and feel that they are appreciated by their colleagues and the workplace community.



THE GLOBAL GOALS

For Sustainable Development

Alignment between the Focus Area and the UN's Sustainable Development Goals



Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

8.7 Take immediate and effective measures to eradicate forced labor, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labor, including recruitment and use of child soldiers, and by 2025 end child labor in all its forms.

8.8 Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.

- Our Supplier Requirements include the observance of human rights in activities that are directly related to our operations. The Supplier Requirements are published on our website.
- We monitor employee well-being in various ways, and our company applies clearly defined practices to support work ability. We maintain up-to-date safety plans as well as an equality plan. Safety issues are taken into account in our orientation training program. The employee benefits provided by our company have been selected to support mental and physical well-being and build a strong sense of community.



Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending.

- We make significant investments in our R&D activities to support our renewal and maintain an innovative and competitive portfolio of products. In 2021, R&D activities represented 22.8 percent of our net sales (2020: 29.1%).
- We create opportunities for our personnel to continuously develop their competence through studying as well as internal and external training. Our diverse and varying tasks enable continuous on-the-job learning and development. We encourage our employees to share their knowledge openly.

Bittium's Remote Work Policy and Hybrid Work Model

Approximately 70 percent of Bittium's employees has been working primarily remotely due to the coronavirus pandemic. Employees who, due to the nature of their duties, cannot work remotely include those who work in production and laboratories as well as those whose job requires working in security-classified areas. Bittium has been able to prevent Covid-19 infections by continuing to work remotely as a rule. Bittium's Covid-19 working group, which focuses on monitoring the pandemic as well as planning, implementing and communicating pandemic-related measures has continued to hold status meetings at least once a week. In addition, the company continued close cooperation on occupational safety and health between offices as well as weekly meetings. Up-to-date internal communication on Covid-19 has been highlighted as a priority. The information website for employees, introduced in March 2020, is still in use. The website has proved to be a useful communication tool, especially for informing employees of Covid-19 infections and reminding everyone of infection prevention practices.

Bittium adopted a more permanent remote work policy in mid-October. Under the hybrid model, each project and team agree on the most suitable remote work practices for their work and the aim is to use an optimal combination of remote work and in-office work. When the policy was drafted, the views of employees and project managers were assessed by means of surveys, and collaborative workshops were organized with supervisors, project managers and guild managers to develop the policy. The effectiveness of the remote work model will be monitored and developed further as necessary. The new remote work model was in use for just over a month before new remote work recommendations were entered into effect.

Project meetings, staff events, joint coffee breaks and internal product demonstrations were mostly organized as virtual events.

Bittium Employee Survey and the Employee Experience

The annual Bittium Employee Survey (BES) is an important tool for developing well-being at work and job satisfaction and enhancing the employee experience. The results of the survey are discussed at all levels of the organization, from the Board of Directors and Management Group to individual teams.

The survey consists of five sections with 50 statements in total. The sections are:

1. My work
2. Bittium as a working community
3. Bittium as a company and employer
4. Supervisory work
5. Projects

In the 2021 employee survey, the response rate decreased to 70 percent, compared with 81 percent in the previous year. The overall average score decreased slightly and came to 3.74 (2020: 3.80, 2019: 3.72). The survey results in 2021 were largely in line with the results in 2019. The year 2020 was exceptional, also in light of the survey results. Team spirit, support for colleagues and commitment to the working community were again highlighted as Bittium's strengths. The scores for supervisory work remained at an excellent level.

The employees evaluate the realization of the company's values in the employee survey. On a scale from 1 to 10, the scores for trust, courage and innovation were 7.75 (2020: 8.06), 6.87 (2020: 7.34) and 7.02 (2020: 7.38) respectively. These results are in line with the general trend seen in the survey responses from 2020 to 2021.

In addition to the BES survey, the employee experience was monitored by means of monthly Pulse surveys. During the exceptional circumstances created by the pandemic, the Pulse surveys are an important tool for monitoring the spirit among the company's employees. However, as the response rate has declined steadily, the survey imple-

mentation method and focus will be re-evaluated going forward.

Based on the previous year's BES survey, the focus areas selected for 2021 were tools, processes, the renewal of the organization's working methods, workload and the development of critical competencies. In addition to communications related to the exceptional circumstances, communications activity regarding the status of business operations and the general picture were increased.

The special development themes that were identified on the basis of the results of the BES survey in 2021 include engaging the commitment of employees and strengthening the employer image, competence development, managerial work and leadership. Process development will also continue. The challenges that are identified include engaging the commitment of newly recruited employees during the exceptional circumstances and remote work, and the employee experience of new recruits will be assessed in more detail by means of a separate survey.

Supervisory Work and Strengthening the Employer Image

Remote work has changed the nature of supervisory work, making it necessary to pay particular attention to this area. Leadership coffee meetings held every three weeks are one example of the measures taken by Bittium to support supervisory work.

Bittium Leader for Projects, a training program that promotes coaching-style leadership for project managers and team leaders, was launched near the end of the year when the Covid-19 situation made it possible to carry out training events in person, which supports networking between the participants. The training program consists of five training modules. The training began as in-person training with three groups. The plan is to continue the training with two new groups next year. Each group has 15–20 participants.

Bittium’s external employer image is also strengthened by the open-for-all webinars launched in the fall. Four webinars were organized in the fall. Their themes focused on generating added value for customers in different industries. The plan is for the webinar series to continue in 2022.

The employees’ views of Bittium’s attractiveness as an employer were assessed by means of the BES survey in 2021. Communications materials related to recruitment were developed to better communicate Bittium’s strengths, internal culture and team

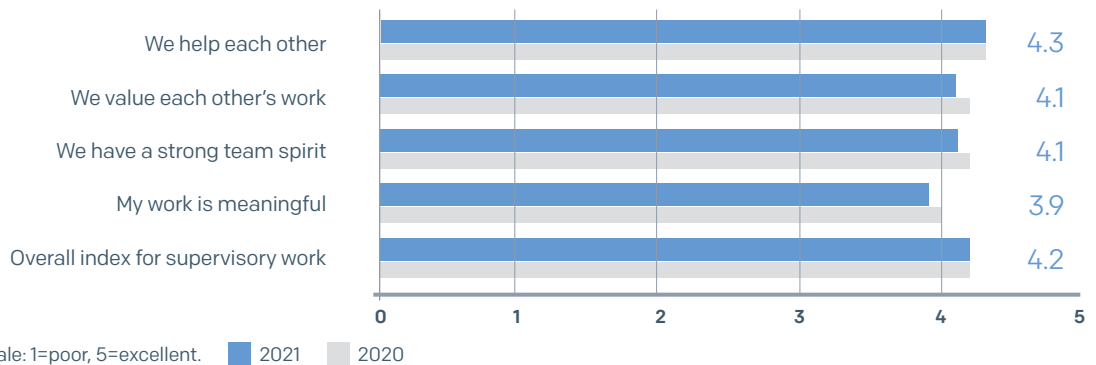
spirit. The employer image will also be measured by means of an external employer image survey in 2022.

Competence Development and Performance Reviews

In accordance with the performance review model, the employee and supervisor 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 supervisors and subordinates. The employees also have the option to agree to have a separate longer conversation, especially with regard to a long-term competence development plan. This actual performance review is held at a time that effectively supports competence development.

Bittium Employee Survey 2021: highlights related to sustainability



Activities related to competence development emphasize the development of effective and agile working methods to ensure that competence development needs will be identified on a more business-driven and employee-driven basis in the future. This effort has been supported by, for example, change agent activities and the information obtained from the personnel survey and pulse surveys on how the employees perceive the current situation as regards competence development. Bittium has taken many measures and conducted assessments related to competence development, and these will continue in 2022.

Topical themes in competence development include data, analytics and artificial intelligence, cloud solutions and virtualization. Efforts related to software life-cycle process development and management, increased

use of efficient operating models, and programming languages and new technologies will also continue. When training is organized to support competence development, online learning methods and platforms are used where possible, but in-person events to support competence development are also organized as necessary. For example, a training program to support the product development and project competencies of employees who work with medical technologies was successfully carried out online, on a location-independent basis.

A new tool was introduced in 2020 to develop the orientation training process for new employees. The tool serves as a platform for the orientation training material and training sessions as well as various eLearning courses. The development of the orientation training path for various jobs and expanding

the use of eLearning solutions continued in 2021. Internal eLearning courses have also been created outside the actual orientation training path to serve broader competence development needs, and these types of solutions will also be taken advantage of in the future. A dedicated eLearning module created on the topic of strategic communication has been well received.

Employees are encouraged to discuss competence development needs with their supervisor, and self-development and training are also encouraged. In 2021, the average number of training days was 3.8 per employee. This includes both internal and external training as well as orientation training and independent study. Internal training may also involve learning on the job and the sharing of expertise, and external training may involve independent study.

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 healthcare services at Bittium has increased slightly compared to the most recent pre-pandemic year. In particular, the number of medium-duration sickness-related absences related to mental health has increased. In response to this, supervisors and project managers have been encouraged to meet their team members face to face more frequently, at least via video calls. In 2022, the company will focus on early support to make it possible to address challenges in a timely manner and prevent stress.

Employee well-being is supported by occupational healthcare services that are more extensive than required by law, as well as other employee benefits. The occupational healthcare services also include a digital clinic and opportunities for remote consultations. Employees also have access to the services of an occupational physiotherapist and the Cuckoo Workout application. HR coffee breaks were organized in 2021. They are open virtual events for personnel, addressing topics related to well-being, such as the ergonomics of knowledge work and the importance of good sleep. At its highest, the number of attendees in these events was several hundreds of people representing various parts of the organization. A company bicycle benefit was introduced near the end of the first half of the year. Bittium has taken out remote work insurance for employees.

All Bittium offices have appropriate safety plans in place. Some of the employees perform duties in which it is of particular impor-

ance 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. A total of three such concerns were reported in 2021.

Bittium's HR management and OHS function analyze occupational accidents at regular intervals and whenever particular risks emerge. In 2021, a total of three occupational accident reports were submitted in Bittium's companies in Finland. None of these accidents led to disability or liability under the Finnish legislation governing occupational accidents and diseases.

Human rights, Equality and Diversity

From the aspect of managing and developing diversity, it is important to take into account different backgrounds and skills and to put them to good use. Participation-oriented and coaching style supervisory work plays an important role in this. 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 Act on Equality Between Men and Women. The realization of equality at work is assessed in employee surveys from the perspectives of pay, career development and recruitment.

As the extensive annual employee survey enables Bittium to address the themes of equality and non-discrimination, the company does not carry out a specific equality survey each year. The next survey is planned for 2022.

The principles concerning the diversity of the Board of Directors are defined in the Corporate Governance Statement.

The vast majority of Bittium's employees work in countries with progressive human rights legislation. Subcontractors and partners are required to adhere to Bittium's Supplier Requirements, which also address the company's approach to human rights questions. Compliance with the Supplier Requirements was evaluated in 2021 based on self-assessments. In 2021, 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.

Active Engagement

Interaction between the employees and teams has been mainly virtual. Normally, the company promotes the employees' collective spirit and activity also outside working hours in the form of various clubs, physical exercise and activities. Club activities were resumed in 2021 and new clubs were established, which speaks to the value given to team spirit at Bittium. Several teams of Bittium employees also participated in the Kilometrikisa cycling challenge for the third time. Organizing team meetings was also possible during the year.

Bittium was not able to organize visits to educational institutions in 2021 due to the coronavirus pandemic.



Personnel in 2021

At the end of 2021, Bittium had 653 employees in Finland, the United States, Mexico, Singapore and Germany. 99% of the company's employees are based in Finland. Most of the employees are R&D engineers.

AVERAGE AGE

44

YEARS AT BITTIUM

9.2

RETIRED

3

WOMEN

653

at the end of the year

667

on average

557

engineers

13%

total

10%

as supervisors

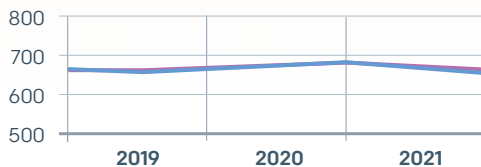
11%

in the Management Group

20%

on the Board of Directors

persons



TRAINING

85.2% **2.4%**

Master's degree/
Bachelor's degree

Licentiate/
PhD

DAYS OF TRAINING

2,502 **3.8**

total

/employee



FOCUS AREA #2

Trust-Based Customer Relationships and Secure Products

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.

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.

Goals	Actions	Performance Measures	Situation in 2020	Result in 2021
Building deeper trust with customers	Continued development of trust-based and performance-driven operating methods.	Customer satisfaction survey NPS (Net Promoter Score).	46.9 (2019: 49.3)	46.9
		Project satisfaction survey NPS (Net Promoter Score).	58 (2019: 62)	45.5
Enhancing the added value of information security	Continuous development of the information security of products and operations.	Auditing and certification of products, business premises and business functions.		Annual certification audits and various information security certificates.
		The development of the number of observations concerning information security threats.		The employees have been trained to report any observations of potential information security threats. A total of 149 persons participated in the training in 2021.
	Information security management systems.			Training on practices and procedures to maintain a high level of information security, training rate above 90%.
	Highlighting information security threats and the importance of information security with various stakeholders and participating in information security development projects and forums.			Participation in the following development projects, for example: Post-Quantum Cryptography (Finland), T1oCPS (EU), CyberFactory#1 (EU).



THE GLOBAL GOALS
For Sustainable Development

Alignment between
the Focus Area and
the UN's Sustainable
Development Goals



**Ensure healthy lives
and promote well-being
for all at all ages.**

3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.

- Our medical technology products improve the quality of modern healthcare and are safe to use. Our products emphasize prevention, for example, in the context of serious complications caused by cardiovascular and neurological disorders. Our product portfolio also supports remote diagnostics, which can help healthcare services to achieve considerable efficiency and savings. Remote services enable the diagnosis of illnesses also during times when face-to-face contacts should be avoided – such as during a pandemic.



**Promote sustained, inclusive and
sustainable economic growth, full
and productive employment and
decent work for all.**

8.7 Take immediate and effective measures to eradicate forced labor, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labor, including recruitment and use of child soldiers, and by 2025 end child labor in all its forms.

8.8 Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.

- We operate sustainably in our purchasing activities. We avoid the use of minerals from conflict zones and counterfeit materials. These issues are covered by our monitoring processes. The requirements related to purchasing as well as procedures related to minerals from conflict zones and counterfeit materials are published on our website.

Customer Relationships Built on Trust

The cornerstone of trust-based customer relationships is to take into account the special requirements related to Bittium’s customers’ operating industry and technology. Bittium achieves this by carefully managing product information, among other things.

Bittium has continued the development of product information management that began in 2020 and the deployment of related tools. As the project involves checking that all existing product information is up-to-date, the work will continue in 2022. The plan is to also expand the use of the system in 2022.

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.

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 2021. All in all, 400 different standards, approximately 100 of them on a daily basis, are observed in the company’s operations. All of Bittium’s management systems are audited by an external party each year.

Bittium also applies product branch-specific product approval procedures, such as MDSAP (Medical Single Audit Program) in health technology products. 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 2021.

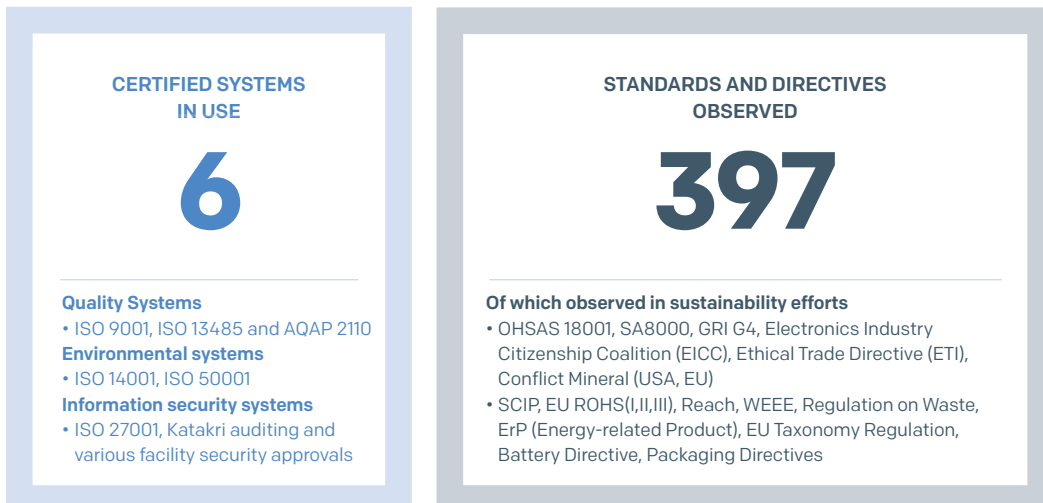
The relevant industry standards are applied in the design of the electrical safety and performance features of Bittium’s products. Customer, country and market-specific requirements are also taken into account in hardware development.

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.

Information Security Management System

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 relevant standards and requirements (ISO 27001, Katakri 2015 and FSC) as well as the requirements set by the customers and by 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 also 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.

No serious information security non-conformities were observed in 2021.

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.

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.

Bittium conforms to sustainable business practices and requires the same of its suppliers. The company's partners must comply with Bittium's Code of Conduct as well as the Bittium Supplier Requirements. The Bittium Supplier Quality Manual was updated with details in 2021, and it is available on Bittium's website. Suppliers are always ex-

pected to comply with the latest version of the guidelines.

Suppliers are also audited according to pre-defined criteria. Audits are carried out as a self-assessment based on the Bittium Supplier Requirements or as an audit conducted by Bittium. Most of the audits conducted in 2021 were based on self-assessment. However, especially in Finland, conducting audits physically at the suppliers' premises was possible to some extent in spite of the pandemic. As regards international suppliers, local partners have been used for audits. This approach has enabled on-site audits in China, for example.

In 2021, Bittium started a development project entitled Marimin with the aim of finding more Finnish and European suppliers of critical components. A large number of suppliers has been evaluated under the project and, for certain critical components, it has been possible to move deliveries to Finland and Europe.

Employee training is also an important part of ensuring sustainable purchasing. Sustainable purchasing is part of the environmental training package that Bittium's employees complete independently.

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 mo-

bile devices and computers. External databases are used for monitoring.

In 2021, 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 company has developed a supplier reporting method to avoid the use of counterfeit materials. The procedures address different stages of the purchasing process, starting from the selection of suppliers. Bittium's employees are trained to identify counterfeit materials. By combining product information management with information in the material database, Bittium can respond to customer expectations regarding real-time information management in relation to counterfeit materials.

Due to the impact of the global component shortage on Bittium's operations, new suppliers have been added to the supply chain to ensure the availability of certain components. While this may only be a temporary arrangement, diligent assessments have been conducted on the new suppliers to ensure that the materials are authentic.

No counterfeit materials were found in Bittium's products in 2021.



FOCUS AREA #3

Corporate Citizenship and Sustainable Business Practices

Bittium operates as a responsible corporate citizen within the surrounding society. The company is a reliable local partner and employer. It 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.

Goals	Actions	Performance Measures	Examples of Results
Anti-corruption	Internal anti-corruption training.	Rate of participation in training.	Mandatory digital self-learning module for new employees, of whom 73% completed the training.
	Incorporating anti-corruption principles into cooperation agreements.		The requirements are available to all of the company's partners on the Bittium website.
	Using an external background evaluation tool to identify corruption or other ambiguities among business partners.	Observations of ambiguities or anti-corruption activities, number of observations per year.	No observations in 2021.
Responsible corporate citizenship	Bittium is actively involved in the development of local business and supporting schools and educational institutions.	Participation in various working groups, supporting non-profit organizations.	In 2021, Bittium had 8 research projects under way with universities and research institutes. Bittium donated EUR 50,000 to research in the field of technology at the University of Oulu.
		Number of visits to educational institutions, number of participants.	No visits to educational institutions were made during the year due to the pandemic.
	Reviewing the export control system from the perspective of internal process development.	Making the processing of export control applications more efficient.	Application filing procedures have become more efficient.
	Continuous monitoring and adoption of laws and regulations.	Monitoring laws and regulations that are of relevance to Bittium.	Monitoring and adoption of new and amended regulations; dozens of changed regulatory requirements in 2021.
Developing stakeholder cooperation	Further improving Bittium's understanding of stakeholder views and expectations.	Developing even more open dialogue between stakeholders.	The form of stakeholder engagement has been changed due to the pandemic, shifting the focus to webinars, for example.

Each year, Bittium participates in many different Finnish, European and international development projects. In 2021, Bittium was involved in significant development projects in the industry, including iMUGS and CyberFactory#1.

The iMUGS (integrated Modular Unmanned Ground System) project under the European Defence Industrial Development Programme (EDIDP) 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. The iMUGS project began in 2021 and its duration will be approximately 30 months.

CyberFactory#1 (CF#1) aims to design, develop, integrate and demonstrate a set of key capabilities to promote the optimization and resilience of the Factory of the Future. The project involves 28 parties from seven countries, including pilot users and suppliers as well as research and academic organizations. It thereby covers various technical, financial, human and societal dimensions. Bittium's role has been to develop cyber security architecture and capabilities in its products and manufacturing support systems, such as device management solutions.

There are constant changes in legislation and regulations in the industries that Bittium represents. For example, in 2021, regulations pertaining to medical devices entered into effect, such as the Medical Device Regulation (MDR), which has also affected Bittium's operations. Regulatory developments pertaining to cyber security and the environment are also on the horizon.

As in the previous year, due to the coronavirus pandemic, Bittium was unable to arrange visits to educational institutions, which the company considers important under normal circumstances.



THE GLOBAL GOALS
For Sustainable Development

Alignment between the Focus Area and the UN's Sustainable Development Goals



Ensure sustainable consumption and production patterns.

12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.

12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities.

- We set an example by reporting on the planning, implementation and results of our sustainability actions in our annual sustainability report. We take a systematic approach to the development of our sustainability efforts and the reliability of our reporting.
- We cooperate with our customers to ensure that we can take sustainability into consideration in our products and operations to the greatest possible extent, including environmental sustainability.
- We publish more detailed requirements for our partners on our public website with regard to quality, the environment and information security.



Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

16.5 Substantially reduce corruption and bribery in all their forms.

- We are committed to the prevention of corruption in accordance with our anti-corruption statement and we report corruption incidents as part of our sustainability reporting.



Strengthen the means of implementation and revitalize the global partnership for sustainable development.

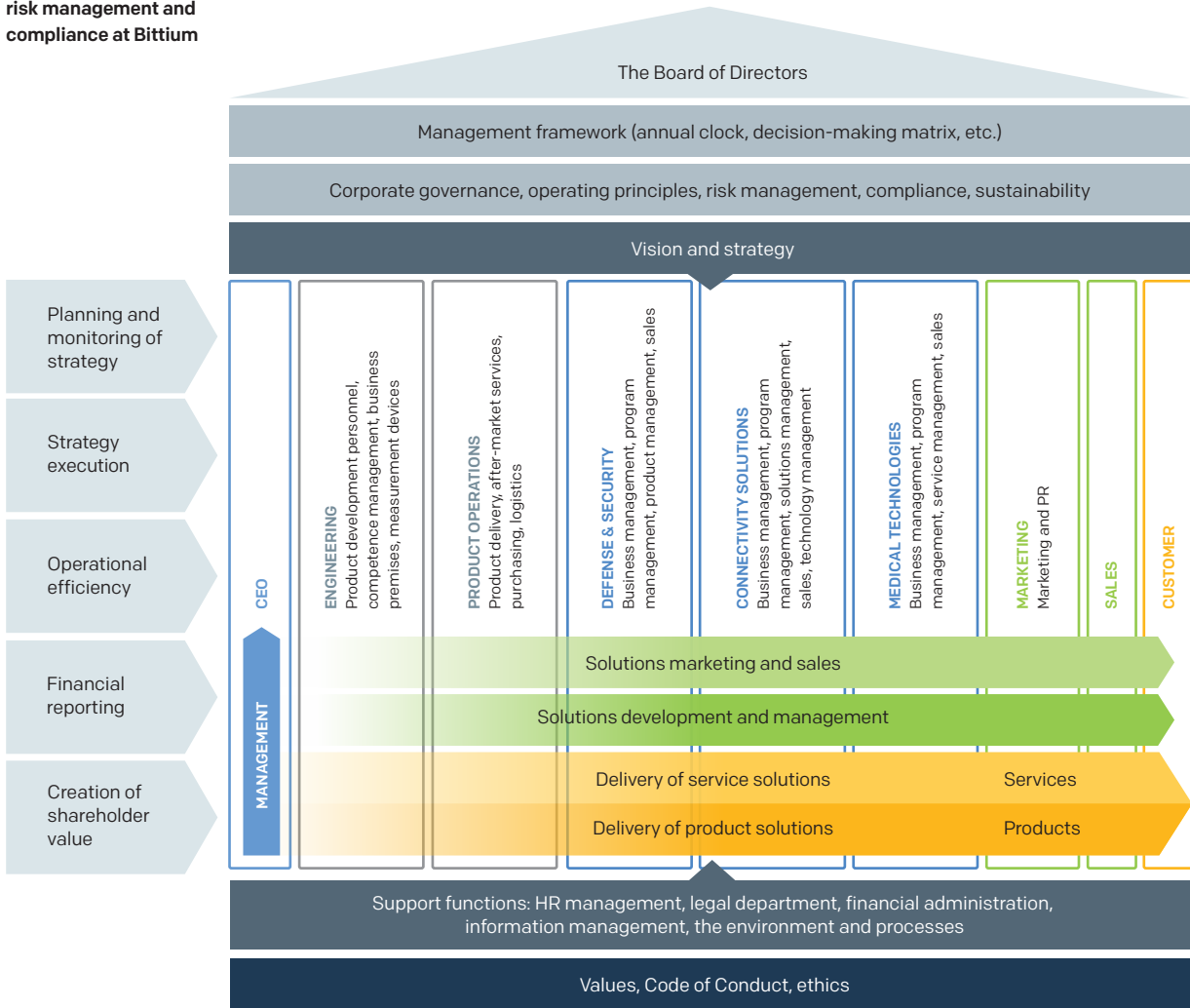
17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships.

- We engage in dialogue with our customers and partners regarding the solutions we develop so that we can produce appropriate and resource-efficient products that benefit our customers and society while reducing waste.



Bittium continuously monitors the impacts of the company's operations and the added value it creates for different stakeholders. The company's key stakeholders include shareholders, customers, employees, partners and other suppliers as well as the public sector. More information on stakeholder cooperation is provided under 'Sustainability management'.

Corporate governance, risk management and compliance at Bittium



Good Corporate Governance Guides Sustainability

The management of Bittium Corporation is governed by the Articles of Association, Finnish law and Bittium’s governance guidelines. Bittium observes the Finnish Corporate Governance Code 2020 published by the Securities Market Association, which entered into force on 1 January 2020. Bittium’s Corporate Governance Statement is available at www.bittium.com.

GRC (governance, risk management and compliance) refers to the skills and abilities that enable an organization to meet its targets, address uncertainties and operate with integrity. Bittium’s GRC measures also include the company’s framework for internal control.

Export Control

With respect to Bittium’s customers, export control 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. Bittium closely monitors changes in legislation in different market areas. In 2021, the company continued to cooperate with the authorities on prior declarations, which has resulted in smoother processing of applications.



FOCUS AREA #4

Environmental Sustainability

Actions	Performance Measures	Situation in 2020	Target 2021	Result in 2021
Continuous improvement of the waste recovery rate	Recovery rate (%)	Recovery rate 99.84%	Recovery rate over 95%	99.08%
Reducing the overall carbon footprint	Carbon footprint/employee (CO ₂ e kg/employee).	1,130 CO ₂ e kg/employee. Note! The figure is not entirely accurate due to incomplete data. For example, the estimate does not include all of the company's travel-related emissions because not all business travel was booked through the designated travel agency.	<2,900 CO ₂ e kg/employee. This target is assessed for a three-year period based on the available data.	1,096 CO ₂ e kg/employee. Note! The emission factors have changed from the previous calculation due to a change in statistical methods.
Maximize the use of renewable energy	Rate of solar power usage at the Oulu office.	The solar power plant generates approximately 10–13% of the energy consumed by the Oulu office from May to August. This represents approximately 5% of the annual energy consumption of the Oulu office.	Solar power represents over 10% of the Oulu office's energy consumption during the summer months.	The solar power plant generates approximately 9–13% of the energy consumed by the Oulu office from May to August. This represents approximately 5% of the annual energy consumption of the Oulu office.
Share of renewable energy of purchased energy	Evaluating energy consumption at each location.	Energy transmission files and energy profiles are available for each office to the extent required for the performance indicators.	Indicators are available for each office.	Energy transmission files and energy profiles are available for each office to the extent required for the performance indicators.
Increasing environmental awareness among Bittium's employees	The employees' rate of participation in training (%).	58% of new employees participated in the mandatory training. Voluntary further training was not organized.	Mandatory basic training: 60% of new employees. Voluntary further training: 50%. Core target groups: operation, product management, project management and device engineering.	58% of new employees participated in the mandatory training. Voluntary further training was not organized.



THE GLOBAL GOALS
For Sustainable Development

Alignment between
the Focus Area and
the UN's Sustainable
Development Goals



Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavor to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead.

- We recognize the need for resource efficiency and respond by observing various environmental standards in our operations. Ecological design is the starting point of our product development.



Ensure sustainable consumption and production patterns.

12.2 By 2030, achieve the sustainable management and efficient use of natural resources.

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

- We pay special attention to the use of renewable energy, our waste recovery rate and the reduction of waste at our operating locations and report them as part of our sustainability reporting.

Management of Environmental Sustainability at Bittium

Responsibility for the environment, the mitigation of climate change and resource-efficient solutions are key aspects of Bittium's operations and their development. In accordance with its environmental policy, Bittium is committed to minimizing the environmental impacts of the production, use and disposal of products. The ISO 14001 standard is applied to Bittium's environmental management system and the principles of sustainable development are observed in accordance with the standard in the following ways, for instance:

- Monitoring and observing amendments to the laws and regulations concerning environmental protection. Also includes the use of energy-efficient solutions in R&D (ecological design) and at business premises.
- 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.

The Company regularly monitors the international environmental requirements that govern its products as well as the local regulations derived from these. The requirements also extend to our major suppliers. 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. Companies are under the obligation to report any substances of very high concern (SVHCs) in their products to the SCIP database for information on Substances of Concern In articles as such or in complex objects (Products), maintained by the European Chemicals Agency (ECHA) effective from the beginning of 2021. SCIP has not had a significant impact on Bittium's operations.

Although regulations prohibiting the use of halogens in electronics have not been introduced yet, 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).

Circular economy principles are taken into account in Bittium's product design and product development

Bittium's business is mainly focused on product design, sales and marketing. Product assembly is performed by manufacturing partners. Bittium's share in the early part of the product life cycle only accounts for a small proportion of the products' life cycle impacts. The greatest environmental impact occurs during the last stage of the product life cycle, i.e. recycling. Eco-friendliness is a starting point for all product design and product development at Bittium. Accordingly, circular economy principles are increasingly taken into account in these activities.

Bittium's products are designed to have long life cycles and to be repairable and recyclable. In the case of many defence industry products, for example, the company must be able to guarantee operational reliability and delivery reliability for several decades. These products include a maintenance service that involves device maintenance and updates. 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 are also taken into account in this context. Bittium disassembles decommissioned products, sorts the components and recycles them appropriately.

Bittium's product design and product development activities aim for compliance with the EU Ecodesign Directive, which is intended to improve the energy efficiency of products by integrating environmental perspectives and life cycle thinking into the product design stage. The Directive is in the process of being expanded to also address the impacts of software production on the life cycle assessment of a product's ecological footprint. Bittium has participated in the authorities' work on the Directive at the Finnish and EU levels.

Environmental Program 2020–2022, Performance Measures and Results Achieved in 2021

Bittium started an environmental program in 2020 that will continue until 2022. In the program, it was determined that the areas that are the most relevant to reducing Bittium's carbon footprint include the recycling of waste generated by the company's operations, the use of renewable energy and increasing environmental awareness among Bittium's employees. Four targets were set for the environmental program:

1. Maintaining the waste recovery rate at over 95 percent
2. Maximizing the use of renewable energy
3. Increasing the share of renewable energy in energy purchasing
4. Increasing environmental awareness among employees.

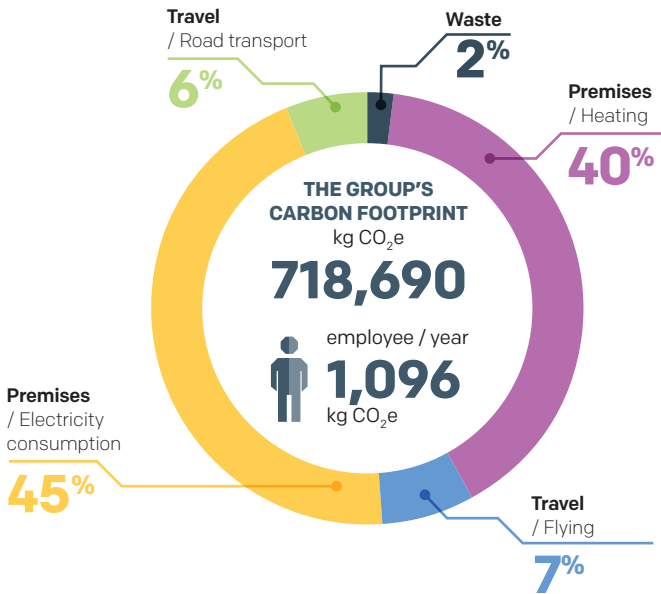
We achieved our environmental sustainability targets in 2021.

- Our total carbon footprint was 719 tCO₂e, 1,096 kg CO₂e/employee (2020: 753 tCO₂e, 1,130 kg CO₂e/employee; 2019: 1,153 tCO₂e, 1,755 kg CO₂e/employee; 2018: 1,219 tCO₂e, 2,865 kg CO₂e/employee). The lower carbon footprint was attributable to a significant reduction in air travel due to the coronavirus pandemic and a change in the calculation method concerning emissions generated by waste.
- At its highest, the share of solar power of the electricity consumed at the Oulu office was 13.5 percent (2020: 13%, 2019: 11.9%, 2018: 12%).
- Bittium utilizes in its carbon footprint calculations accurate information on the properties available and the information available from the properties where Bittium is for rent. This includes for example available waste information. In addition Bittium acknowledges for example the CO₂ emission co-efficiency factors published by the Finnish Statistical Center for the average district heating production from which the average of last three years is calculated. For this reason, benchmarks for the carbon footprint may vary slightly from year to year.
- Altogether 104 employees (15.9 percent of the personnel) completed the test included in the environmental training module.

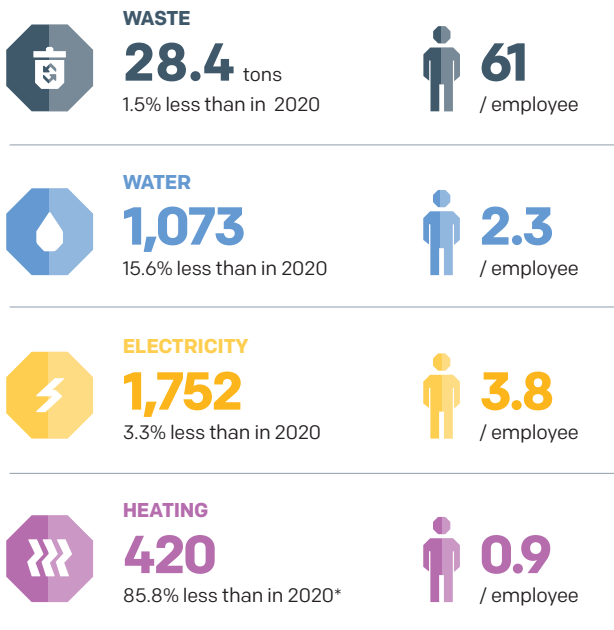
Most of the waste generated by Bittium is packaging waste. The waste volume has remained relatively stable since 2018 in spite of the delivery volumes of Bittium's products increasing over the years. This is due to Bittium's manufacturing partners taking a larger role in the supply chain and a larger share of manufactured components and partial assemblies being delivered directly to factories. The packaging modules have also been simplified.

Environmental Sustainability Indicators

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

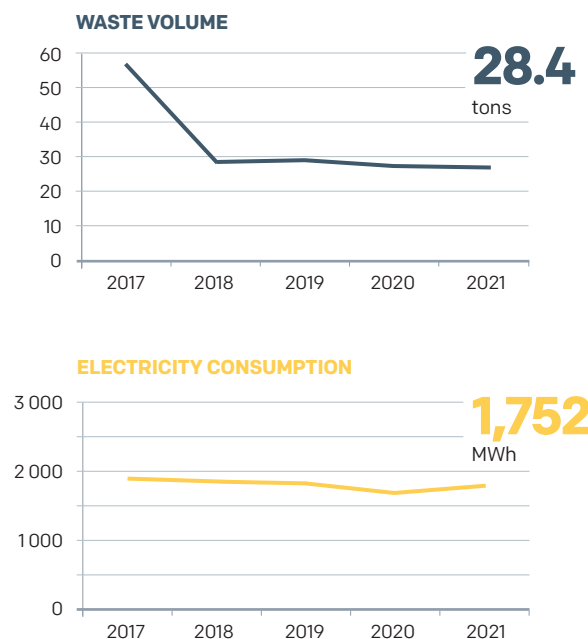


Bittium's environmental sustainability indicators, Oulu Office



* The significant growth of heating consumption year-on-year resulted by the returning to work at office part-time as the coronavirus pandemic temporarily eased, as well as the failures of the heating capture system.

Environmental Sustainability Indicators 2017–2021
(Trend), Oulu Office



Reporting

Reporting Basics and Principles

Scope of Reporting

This sustainability report, as a part of the annual report, is the fourth extensive report on the management and implementation of sustainability at Bittium. In 2021, Bittium has implemented actions on topics related to sustainability according to the sustainability program and developed its sustainability metrics, providing more information on the impacts. The sustainability program is based on the materiality analysis conducted in 2019, which aimed at gaining an understanding of stakeholders' views on previously selected sustainability focus areas. With the materiality analysis, the company updated its sustainability focus areas and created a sustainability program for the years 2020–2022.

In order to enable comparability, 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 all four sustainability focus areas and a description of Bittium's 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 2020 and 2021.

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

This report will be published in electronic form in connection with the Group's annual report at www.bittium.com and <https://annualreport.bittium.com>.

Scope of the Report

The period covered by the sustainability report is the same as the financial period, January 1–December 31, 2021. 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 Instructions

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 2021 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.

Sustainability Contact at Bittium

Karoliina Malmi
Vice President,
Communications and Marketing
karoliina.malmi@bittium.com

GRI 102 GENERAL DISCLOSURES

G4	Title	Location in Annual Report	Additional info / comments
Organization			
102-1	Name of the organization	Bittium in Brief	Page 8
102-2	Industries, brands, products, and services	Bittium in Brief; Bittium Products and Services	Page 8 Page 13
102-3	Location of headquarters	Bittium in Brief	Page 8
102-4	Location of operations	Bittium in Brief	Page 8
102-5	Ownership and legal form	Bittium in Brief, Corporate Governance	Page 8 Page 24
102-6	Markets served	Bittium in Brief	Page 8
102-7	Scale of the organization	Bittium in 2021	Page 4
102-8	Information on employees and other workers	Innovative and developing people	Page 62
102-9	Supply chain	Suppliers and Partners; Sustainable Purchasing	Page 55 Page 71
102-10	Significant changes to the organization and its supply chain	Report by the Board of Directors; Customer Relations Built on Trust	Organization: Changes in the Management Group, Sales organization as part of Product and Services organizations Page 100 Supply chain: Deliveries of components transferred to Europe and Finland Page 71
102-11	Precautionary Principle or approach	Risk Management	Page 41
102-12	External initiatives		None
102-13	Membership of associations		Technology Industries of Finland
Strategy			
102-14	Statement from CEO	CEO Review	Pages 6–7
102-15	Key impacts, risks, and opportunities	Business and Operating Environment; Main features of Internal Control and Risk Management Processes related to Financial Reporting Processes; Report by the Board of Directors	Page 8 Page 41 Page 86

GRI 102 GENERAL DISCLOSURES

G4	Title	Location in Annual Report	Additional info / comments
Ethics and Integrity			
102-16	Values, principles, standards, and norms of behavior	Corporate Citizenship and Sustainable Business Practices; Value Creation Model	Page 72 Pages 52–53
102-17	Mechanisms for advice and concerns about ethics	Corporate Citizenship and Sustainable Business Practices	Page 72 Pages 52–54
Governance			
102-18	Governance structure	Corporate Governance	Page 31
102-19	Delegating authority	Corporate Governance; Sustainability Management	Page 31 Page 54
102-20	Executive-level responsibility on economic, environmental, and social topics	Sustainability Management, Stakeholder Organization, and Risk Management	Page 54
102-21	Consulting stakeholders on economic, environmental, and social topics	Stakeholder cooperation; Corporate Citizenship and Sustainable Business Practices	Page 55 Page 72
102-22	Composition of the Board	Corporate Governance	Page 31
102-23	Chairman of the Board	Corporate Governance	Page 31
102-24	Election of the Board	Corporate Governance	Page 31
102-31	Review of economic, environmental, and social topics	Sustainability Management	Page 54
102-32	Highest governance body's role in sustainability reporting	Sustainability Management	Page 54
102-35	Remuneration of Board of Directors and Management	Corporate Governance; Remuneration Report	Page 30 www.bittium.com/investors/corporate-governance/salary-and-remuneration-report
Stakeholder Engagement			
102-40	List of stakeholder groups	Stakeholder Cooperation	Page 55
102-42	Identifying and selecting stakeholders	Stakeholder Cooperation	Page 55
102-43	Approach to stakeholder engagement	Stakeholder Cooperation	Page 55
102-44	Key topics and concerns raised	Stakeholder Cooperation	Materiality analysis online: annualreport2019.bittium.com/sustainability_report/focus_areas_in_sustainability Page 55
Reporting Principles			
102-45	Entities included in the consolidated financial statements	Notes to the Consolidated Financial Statements; 32. Related Party Disclosures	Page 144
102-46	Defining report content and topic Boundaries	Sustainability at Bittium in 2021; Scope of reporting	Page 57 Page 80
102-47	List of material topics	Sustainability Program 2020–2022	Page 57
102-48	Restatements of information	GRI Standard Content Index, Environmental Sustainability	Page 81 The emission factors used have changed from the previous calculation due to a change in statistical methods.
102-49	Changes in reporting	GRI Standard Content Index, Environmental Sustainability	Page 76
102-50	Reporting period	Reporting Basics and Principles	Page 80
102-51	Date of most recent report	GRI Standard Content Index	19.3.2021
102-52	Reporting cycle	Reporting	The report is published annually.

GRI 102 GENERAL DISCLOSURES

G4	Title	Location in Annual Report	Additional info / comments
102-53	Contact point for questions regarding the report	Reporting	Karoliina Malmi, Vice President, Communications and Marketing karoliina.malmi@bittium.com Page 81
102-54	Claims of reporting in accordance with the GRI Standards	Reporting Basics and Principles	Page 80
102-55	GRI content index	GRI Standard Content Index	Page 81
102-56	External assurance	Reporting Basics and Principles	Page 80

GRI 103 MANAGEMENT APPROACH

103-1	Explanation of the material topic and its Boundary	GRI Standard Content Index; Focus Areas in Sustainability	Calculation boundary: Bittium Corporation Page 81 Page 60
103-2	The management approach and its components	Sustainability Management; Focus Areas in Sustainability	Page 54 Page 60
103-3	Evaluation of the management approach	Sustainability Management	Page 54

TOPICAL CONTENT

Financial Impacts

201 Economic Performance			
201-1	Direct economic value generated and distributed	Financial Influence	Pages 58–59
201-4	Financial assistance received from government	Notes to the Consolidated Financial Statements; 4. Other Operating Income	Page 117

205 Anti-corruption			
205-3	Confirmed incidents of corruption and actions taken	Corporate Citizenship and Sustainable Business Practices	No violations Page 72

Environmental Impacts

301 Materials			
301-1	Materials used by weight or volume	Environmental Sustainability	Bittium does not use paper, carton, or metals to manufacture its products. Bittium reports material waste and the recycling rate associated with the use of materials at its operating locations. Pages 78–79

302 Energy			
302-1	Energy consumption within the organization	Environmental Sustainability	Pages 78–79
302-4	Reduction of energy consumption	Environmental Sustainability	Pages 77–79

303 Water			
303-1	Water withdrawal by source	Environmental Sustainability; Environmental Sustainability Indicators	Total and per-capita water consumption figures are reported for Bittium's operating locations. No water is used in the manufacture of products. Page 79

305 Emissions			
305-1	Direct (Scope 1) GHG emissions	Environmental Sustainability	Reported carbon footprint. Pages 78–79

306 Effluents and Waste			
306-2	Waste	Environmental Sustainability	Pages 78–79

307 Non-compliance with Environmental Laws and Regulations			
307-1	Environmental compliance	Environmental Sustainability	Database of applicable environmental laws and regulations

Social Impacts

G4	Title	Location in Annual Report	Additional info / comments
403 Occupational Health and Safety			
403-1	Occupational health and safety management system	Innovative and Developing People; Well-being and Occupational Safety	Page 66
403-2	Hazard identification, risk assessment, and incident investigation	Innovative and Developing People; Well-being and Occupational Safety	Bittium continuously develops its occupational safety processes and risk management. More information pertaining to subcontractors is provided in Bittium's Supplier Manual: www.bittium.com/about-bittium/suppliers/supplier-manual Page 66
403-3	Occupational health services	Innovative and Developing People; Well-being and Occupational Safety	Occupational health services beyond the scope of the statutory requirements cover 99% of the personnel. The provision of occupational health services as part of compliance with the Act on Contractor's Liability is part of Bittium's subcontracting process. Page 66
403-4	Worker participation, consultation, and communication on occupational health and safety	Innovative and Developing People; Well-being and Occupational Safety	Page 66
403-5	Worker training on occupational health and safety	Innovative and Developing People; Well-being and Occupational Safety	All Bittium operating locations have appropriate safety plans in place, and safety issues are addressed in Bittium's orientation training program. Occupational health information is regularly communicated to the personnel. Subcontractors are responsible for the occupational health and occupational safety training of their employees in accordance with their respective principles. Bittium provides orientation training to subcontractors who work on Bittium's premises. Subcontractors who work on the premises of Bittium's customers receive orientation training from the customer in question. In other respects, subcontractors are responsible for training their employees. Page 66
403-6	Promotion of worker health	Innovative and Developing People; Well-being and Occupational Safety	Page 66
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Customer Relationships Built on Trust and Secure Products; Sustainable Purchasing, Innovative and Developing People; Statement of Non-financial Information	More information pertaining to subcontractors is provided in Bittium's Supplier Manual: www.bittium.com/about-bittium/suppliers/supplier-manual Page 71 Page 62 Page 98
403-8	Workers covered by an occupational health and safety management system	Innovative and Developing People; Well-being and Occupational Safety	Bittium Employees. Page 67
403-9	Work-related injuries	Innovative and Developing People; Well-being and Occupational Safety	In 2021, there were 3 near misses and 3 occupational accidents reported at Bittium companies in Finland. None of them resulted in incapacity for work or an obligation to pay compensation under the Accidents at Work and Occupational Diseases Act. Page 66
403-10	Work-related ill health	Innovative and Developing People; Well-being and Occupational Safety	The sickness-related absence rate was 3% in 2021 (calculated from the occupational health service provider's data, day/employee vs. theoretical regular working hours). Bittium does not have access to this data with regard to workers from staffing services. Page 66
404 Training and Education			
404-1	Average hours of training per year per employee	Innovative and Developing People	Reported hours of training per employee Pages 62, 67
404-2	Programs for upgrading employee skills and transition assistance programs	Innovative and Developing People	Page 65
405 Diversity and Equal Opportunity			
405-1	Diversity of governance bodies and employees	Diversity Principles of the Board of Directors; Innovative and Developing People	Page 32 Page 66
419 Socioeconomic Compliance			
419-1	Non-compliance with laws and regulations in the social and economic area	Sustainable Purchasing; Statement of Non-financial Information	No violations • Anti-corruption: pages 54, 72, 99 • Conflict minerals: page 71 • Counterfeit materials: page 71

Bittium

Connectivity to be trusted.
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