

## Message from the President

**We will pursue progress by taking a medium- to long-term perspective, gauging market trends, and seeking to further enhance our corporate value.**

### **We worked to provide a steady supply of products during the COVID-19 pandemic through numerous corporate-wide initiatives**

I would first like to express my sincere gratitude to our shareholders, investors, and all other stakeholders for your continued support and take this opportunity to explain our future management as Murata's key representative.

Approximately one year has passed since I became President. Personally, I feel it is a great shame that people's movement around the world remains restricted due to the ongoing COVID-19 pandemic because it makes it difficult for me to meet and talk directly to our customers and stakeholders. Speaking with customers often enables us to glean ideas about new products and business, which greatly contributes to our business. I am very much looking forward to visiting stakeholders when the pandemic is finally under control.

While we did have to suspend operations at some production sites over the past year, this has fortunately not significantly impacted product supply. At Murata, members of our development teams typically visit sites to help launch the mass production of a new product. Since the majority of our development functions are located in Japan and roughly 65% of our production is carried out in Japan, we have been able to keep COVID-19 travel restrictions to a minimum and facilitate a smooth transition from development to mass production. That has enabled us to maintain a 30% or higher sales ratio for new products, the driver of Murata earnings.

Furthermore, we have made great progress on promoting the use of digital technologies in relation to our locations outside of Japan, which has helped us to establish systems to carry out various procedures remotely from Japan that used to require people moving around more widely, such as onsite meetings, production transfers, and equipment launches.

The thing I feared most as a manager over the past year was that production would stagnate

due to spreading infections, and we would not be able to fulfill our duty of providing customers with a stable supply of products. Every one of our departments moved swiftly to avoid such scenarios, and our employees took swift and insightful action based on their own individual perspectives and roles. I believe that our decision to implement extremely strict standards and thorough infection-prevention measures at all factories, as well as our efforts to ensure alternative production options and ways to recover swiftly from any temporary shutdown of operations, enabled us to ensure a stable supply for our customers. Throughout these initiatives, I felt that every one of our employees took full responsibility to ensure we could fulfill our mission for stable supply and superior quality control. Despite the difficult ongoing situation caused by the COVID-19 pandemic, I believe the past year has made us keenly aware of our company's strength and shown us how the autonomous and decentralized organizational management that I have been advocating since becoming President has started to take shape.

At the same time, the past year has highlighted other challenges. In particular, some module products ended up losing market share. One reason for that was the fact that the COVID-19 pandemic made it difficult to create new products by communicating directly with customers, which has always been our model and one of our key strengths. We also recognized that there were times that we weren't sufficiently adept at implementing remote solutions when problems occurred at our production or development sites – compared to our traditional method of discussing issues on site, thinking up solutions, and putting them into practice. I call this the “benefits of random conversation,” because I believe that new product ideas emerge not only through formal meetings, but also impromptu chats. During the pandemic, we developed a new form of communication that involves meaningful discussions with global customers and individual operational locations via online conferences from the Head Office. I feel we are now better at providing information and communicating via online settings.



President  
**Norio Nakajima**

of automobiles also helped boost sales and profits.

Murata has always sought to firmly gauge technological innovation trends and focus on reading the situation and prepare for future needs from a medium- to long-term perspective. A commitment to this management style helped build strong corporate performance. At the same time, we believe this strong performance also results from the consistent sincere activities of every employee in the field, and I am extremely grateful to all our employees.

### **Management that anticipates all circumstances in global markets**

In fiscal 2020, the shadow that the COVID-19 pandemic was casting over the global market environment was further darkened by the so-called decoupling of the United States and China. In the smartphone business, one of our core fields, progress on 5G was slower than anticipated and the supply of products to some customers was restricted.

However, I feel that the United States and Chinese markets are recovering from the impact of COVID-19 faster than expected in fiscal 2021. We are also seeing 5G and the electrification of automobiles accelerate. On the other hand, we are concerned about the impact of semiconductor shortages on the supply chain, which is causing customers to secure electronic components by

However, I cannot say that communicating entirely through online conferences enables us to fully reap the benefits of spontaneous conversations. We have to consider how to create new communication channels that inspire innovation.

### **Assessing the situation and preparing for future needs helped generate a record high performance**

We generated record performance in fiscal 2020. This was partly due to the fact that shipments of Murata products increased even more than expected, underpinned by solid demand in the electronics market that fueled significantly higher sales of notebooks, tablets, and other stay-at-home products. Advances in the 5th generation of mobile communication systems (5G) and the electrification



increasing both advance purchases and inventory levels. As such, we believe this may lead to a decline in sales in the second half of the fiscal year.

With regards to developments in relations between the United States and China, it is difficult to envision immediate improvements, so we intend to consider various models and formulate frameworks that will enable us to respond to any situation.

**We intend to steadily develop new products, technologies, and markets.**

Looking ahead to the likely trajectory of future technology innovation, as the evolution of automobiles continues to accelerate for example, the time required to bring a new product to market is getting shorter. In that sense, I believe that Murata must approach technology development with an even greater sense of urgency.

Having said that, as the development of autonomous vehicles progresses, the sensors and other equipment used in those vehicles will need to demonstrate an even higher level of performance. Technological breakthroughs are an essential part of this process, so we need to pursue development activities that do not focus on the short-term perspective, but instead focus on the type of technological innovation that will be required five to 10 years from now.

In terms of new product and new technology trends, we originally expected MetroCirc and other millimeter wave-related products for 5G to gain momentum in fiscal 2020, but this was hampered in the short term by the US-China decoupling and other factors. However, we believe these technologies will be fully utilized as millimeter wave technology becomes more widespread.

We expect demand for 5G to expand going forward as we start to see Public 5G used in public applications and Private or Local 5G used to build optimal communication networks in specific locations. Facilitating robust millimeter wave communication as part of that trend will require extremely high performing antennas and substrate modules, something we expect to greatly expand the playing field for our own products.

We also intend to develop the market for our solid-state batteries by leveraging their advantages over lithium-ion batteries, including their non-combustible, strongly heat-resistant, compact, and surface-mountable benefits. We expect that these significant features will help position our batteries for use in a wide range of wearable applications operating near the human body, such as smart watches, hearable (voice-enabled) devices, and VR

goggles. At this point in time, we haven't been able to achieve fully equivalent characteristics of lithium-ion batteries, but we intend to proceed with mass production for certain applications.

**We will energize our business and create new business models.**

Let me now cover the progress of our Mid-term Direction 2021. In terms of the plan's numerical targets, while it would be a tough climb to achieve the net sales target. However, our earnings forecast announced on July 29, 2021 suggest that the plan's ratio of operating income to net sales and ROIC (before tax) will likely exceed that projection. A company's ability to supply products is becoming increasingly important in the face of recent supply-chain disruptions caused by coronavirus infections and difficulties procuring semiconductors and other parts. Our decision to expand capacity in advance enabled Murata to grasp new business opportunities related to strong component demand in this current environment. (▶ P.36 Mid-term Direction 2021 review)

In terms of capital expenditure, we prepared for the increase in component demand over the medium to long term by making upfront investments primarily in land and buildings and investing in the increased production of multilayer ceramic capacitors (MLCC). From the coming fiscal year onward, we will work to streamline MLCC production and strengthen frameworks for increasing production of other high-frequency products and electromagnetic interference (EMI) products, etc.

Regarding our decision to promote portfolio management based on feasibility assessment models, one of the important objectives of Mid-term Direction 2021, we are monitoring the areas in which we need to metabolize business faster.

While we recognize the important role that portfolio management plays in increasing profitability, we are also concerned that focusing solely on profitability could render us less prepared to support medium- to long-term growth. I believe Murata's balanced model is important here. As an engineer, I am confident in my ability to read technology trends, but deciding which business to fully commit to is not easy and requires careful assessment. Indeed, it took us several decades to move from the development stage to a truly profitable business even for our current top-earning MLCC and high-frequency products. For these reasons, I believe we should not select businesses based solely on short-term evaluations.

In addition to metabolizing current businesses, creating new businesses for future growth is another important element for corporate management. I believe the definition of Murata's customers will change significantly going forward. Currently, smartphone manufacturers are our main customers in the 5G field, but we believe, 5G will be used across a much broader range of applications and play an integral part in our communication infrastructure. As a vast range of products connect to the network, we could see categories of businesses and organizations with no previous communication links become our customers. We are currently conducting a thorough review of our customer definitions and gradually approaching new customers.

Mid-term Direction 2021 is also focusing on increasing productivity and ensuring a stable supply system. When we were formulating the current mid-term plan, our customers were being inconvenienced by the tight supply of MLCC and other products. Given that, we decided to expand our production capacity and promote the use of smart factories to help us achieve that without increasing staff numbers. I believe those moves have been successful from the point of view of expanding supply. Our annual production of MLCC currently stands at over one trillion units, and we are working to expand production capacity and further promote the use of smart factories. With production volumes increasing to such an extent, it is important to be able to anticipate demand. We are leveraging various types of data amassed over the years and simulation technologies to facilitate more accurate demand forecasting.

In addition to strengthening our production systems, we have also been focusing on organizational reforms. I personally advocated the importance of autonomous and decentralized organizations on many occasions via our internal social media and other channels. The autonomous decentralization that I am referring to has three important elements: autonomy, Collectiveness and Evolution (▶ P.34 Autonomous and decentralized management). Historically, Murata organizations tended to pursue thorough optimization at each individual operational location or division. While that is no doubt one of our key corporate strengths, I am aiming to encourage autonomous decentralization that strives to optimize the company. I want our employees to show a keen interest in what other members, departments, and factories are doing, to minimize the things they don't know, and then value their own decisions, actions, and skills based on that knowledge. We seek to create an even stronger organization and achieve further growth as a company by sharing the unique



features and strengths of each operational location and division across the whole company – influencing each other and advancing together.

Strengthening our underlying human resources base is another important challenge for the new era. We must fundamentally change the way of our human resources development as we enter an era in which the definition of our customers changes and the discontinuous technological innovation that is not necessarily an extension of current developments occurs.

In an autonomous and decentralized organization, it is important that each individual independently considers his/her own role, and makes and executes his/her own decisions. In the past, we tended to focus on providing education and training and developing management personnel based on a one-size-fits-all system. Going forward, we look to create an environment that nurtures employees with diverse career backgrounds and highly creative individuals by creating a new management training initiative. We strive to empower our employees to decide the type of career they want to develop and the person they want to be.

We launched our Minato MIRAI Innovation Center in Yokohama at the end of 2020 in order to help secure human resources capable of creating new business models as the third layer of the 3-layer portfolio, and to help establish a fresh competitive advantage by strengthening cooperation with external resources. I believe we will achieve great success as a major research and development base in East Japan.

**Sketching the future of the electronics industry, we will establish a new 3-layer portfolio**

As far as our company's future is concerned, as a manager, I am always looking to lend perspective on the future of the electronics industry to our employees. We launched our internal Preparation Project, a very-long-term initiative in which we encourage the generation who will be responsible for the future to consider what the company should look 10 to 20 years from now. The Preparation Project discusses changes in lifestyles, desirable business models, and any issues we should be preparing for now based on those changes.

To encourage diverse innovation from a long-term perspective, Murata is implementing a 3-layer portfolio management and creating value focused on four key areas: communications, mobility, environment, and wellness (▶ P.31 Deepen core businesses and promote evolution of business models). The new 3-layer portfolio consists of layer

1: MLCC and other components, layer 2: devices and modules, and layer 3: solutions and other new fields. Right now, we enjoy overwhelming competitiveness in layer 1. However, we recognize that this might not always be the case. Going forward, we envision scenarios in which the commoditization of edge devices might spark greater commoditization of built-in electronic components. I think layer 1 and layer 2 will continue to serve as the pillars of our business for some time. That said, looking ahead to 2030 and beyond, we need to further strengthen these two layers and nurture layer 3 to help diversify our earnings sources.

Regarding the intended strategy for each layer, for layer 1, the aim is to increase business efficiency and ensure we capture business opportunities in a growing market and pursue lean business operations. Our strategy for layer 2 involves differentiating our technologies to earn a competitive advantage and strengthening the financial health of our battery and other businesses where improvements are currently lagging. For instance, the annual performance of module products is becoming increasingly volatile since there is no clearly differentiated technologies in the industry. We intend to expand that business by investing capital wisely to promote differentiation. Finally, our strategy for layer 3 involves fostering discontinuous core technologies and challenging ourselves to build new business models. That will require multiple attempts and involve some failures, but I am sure we will discover areas where we can demonstrate our strengths to the fullest degree.

**We will achieve sustainable growth by creating a continuous cycle of economic value and social value.**

Throughout our history, we prized the Murata Philosophy and sought to develop a culture based on our Innovator in Electronics slogan. Looking ahead 10 years, Murata's business environment will likely be significantly different. If we are to continue proactively creating value as an Innovator in Electronics, we need to expand that scope of the value we provide from just "innovation for customers" to also include "innovation for solving social issues." We developed our Vision 2030 to depict where Murata wants to be and how we can uniquely contribute to achieving the sustainability of society and our enterprise (▶ P.29 Vision 2030).

Vision 2030 specifies that "Murata will innovate to create a continuous cycle of social and economic value and contribute to the enrichment of society" as a path to achieve our objectives. Our aim is to accomplish this and continue to be the best

choice for our customers and society as the Global No. 1 Component & Module Supplier. As part of that process, I believe it is important to enable diverse human resources to play an active role that leverages employees' unique qualities. Further, we must create innovation that inspires trust, mutual cooperation, and harmonization that transcends traditional team and divisional groupings. We seek to become our ideal company that has earned the respect of all our shareholders.

It goes without saying that ESG management initiatives are important for ensuring sustainable growth. It is imperative that we simultaneously secure steady profits and respond to society's demands. We are entering an era in which companies may be excluded from the market if they do not provide both social and economic value. For instance, we may reach a stage when we might not be able to sell MLCC packages unless they display a label saying, "this product uses 100% renewable energy." In other words, failing to take firm measures to respond to climate change and resource recycling initiatives would ultimately damage a company's economic value. On that, we are taking significant measures to address issues relating to the environment, society, and governance. We are already one of the first in the industry to become a RE100 member to combat climate change and are working to achieve carbon neutrality. Human rights violations in the supply chain are another critical issue, and we strive daily to reduce risks through assessments and other activities. Our Chairman of the Board, Tsuneo Murata, is leading the initiative to strengthen our governance systems. Our Outside Directors provide an extremely high level of knowledge in their respective specialist fields and

lend candid opinions from an institutional investor, analyst, or risk manager's perspective.

(▶ P.73 Key issues in relation to issues facing society)

(▶ P.61 Three-way discussion with Outside Directors)

Murata is working to accurately predict the technological and social changes we will likely witness in the next five to 10 years and preparing for those changes. We are determined to meet your expectations, so I hope you will continue to trust and support us in our drive to further enhance Murata's sustainable corporate value into the future.

