

## Message from the President

# Becoming the Global No. 1 Component & Module Supplier while continuing to cement our Innovator in Electronics position within the industry

President

**Norio Nakajima**

## Preparing for the next growth stage despite the challenging business environment

We will start by reviewing the results for fiscal 2022. Compared to the previous year, which saw record-high financial results, sales and profit decreased, and pre-tax Return on Invested Capital (ROIC) - a key indicator for the company, also declined. For Murata, which has a high ratio of overseas net sales and considerable foreign currency-denominated transactions, the yen's depreciation of over 20 when compared to the previous fiscal year, was a positive factor for profit growth. However, the main factors causing a decline in profits were a downturn in the company's sales volume against a backdrop of weak demand for consumer product market components, such as smartphones and PCs, as well as the resulting decrease in the operating rate.

The environment is expected to remain challenging in fiscal 2023 for the second consecutive year due to weak recovery in the consumer product market and mounting downward pressure on product prices stemming from sluggish demand. In the smartphone market, we expect demand to expand in India, Southeast Asia, and Africa, where further population growth is anticipated. However, there is a risk of commoditization as the communications technology matures. Murata holds a large market share in a wide range of products, which is primarily centered on our mainstay multilayer ceramic capacitors. However, we believe it is imperative that we remain competitive in the cutting-edge technology areas where we are currently ahead and respond to environmental changes in terms of our business strategy.

In the mobility market, automobile electrification continues to progress, and we believe that demand for electronic components will maintain its steady growth. Since the mobility market requires a greater amount of high-quality, highly reliable products than the consumer product market and because the size of the products places a heavy burden on the company's production processes, we need to increase our production capacity to meet anticipated growth.

The electronics industry is said to experience cyclical economic fluctuations such as recovery, expansion, downturn, and deterioration. In applying this to Murata's history, it is my opinion that we are on a "wave of being an Innovator in Electronics" since earnings peak approximately every fifteen years. Considering this trend, our view is that demand will bottom out in fiscal 2022 and 2023, then the market will once again expand considerably from fiscal 2030 and beyond.

Based on these points, what we need to do now is remain steadfast in our short term strategy, while simultaneously use hypothetical thinking to prepare for the next technological innovation. To achieve continued business growth in the future, we will strive to manage our business in a way that coexists with deductive and inductive thinking that considers both year over year growth and 15 years from now.

## Growing business opportunities for Murata through the expanding use of electronics

In 2021, we announced Vision 2030, Murata's long-term direction that addresses changes in the business environment and outlines our roadmap to achieve sustainable enhancement of corporate value. In the market supply and demand cycle, while there are times when demand temporarily decreases, we believe that increased and ongoing digitalization and the expanding use of electronics and technological innovation in communication will not waiver. In the world of communication networks, new value will be created by "converting everything into data and connecting them together." With the introduction of 5G in the 2020s, a world where various devices are connected to the Internet has been realized. Going forward, increases

in speed, capacity, and low-delay features will continue to advance towards 6G which is expected to be introduced in the 2030s.

Beyond 2030, the importance of communication as an infrastructure will rise and lend to a world where AI connects both physical and cyber worlds. Amidst this, people's lifestyles will change significantly as they can make and execute various decisions in cyberspace. For example, suppose it becomes possible to upload a person's health status to cyberspace and for AI to process vital data and provide instantaneous feedback to optimize someone's well-being. In that case, receiving more appropriate medical care from a medical network will be possible, leading to the



advancement of home medical treatment. In such a society, large volumes of information need to be processed by AI without delay. We, therefore, believe that value creation will progress through new technologies, such as systems that closely connect two spaces and digital twins, and that Murata's business opportunities will further expand considering the company's deep understanding of hardware and extensive knowledge of wireless communications technologies. Murata will keep preparing for the future so that we can continue to demonstrate our footprint as an "Innovator in Electronics" in the electronics industry.

## Achieving a sustainable society and enhanced corporate value through a continuous cycle of social value and economic value

The company formulated its Medium-term Direction 2024 as the first phase in actualizing Murata's Vision 2030 and is actively working on these initiatives. One of our mid-term management transformations is to engage in management that creates a continuous cycle of social and economic value, and we will promote initiatives to solve social issues by setting social value goals as company-wide objectives.

The mission of companies engaged in the capital market, including Murata, is to earn profits and reinvest

them to create even greater value in the future. This way of thinking has not changed, but the global shift towards a more sustainable society has accelerated in the past several years. In addition to these increasing social demands, customers in Europe and the United States are one step ahead of the public perception in Japan. Given this, corporate value is determined by economic value and the extent to which a company can contribute to solving these social issues.

### Vision 2030 (long-term direction) Murata wants to be

#### Innovator in Electronics

**Murata will innovate to create a continuous cycle of social and economic value and contribute to the enrichment of society.**

#### Murata in everyday life

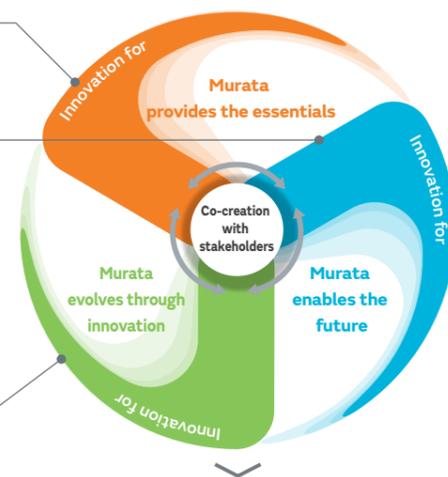
Murata's electronic components are used as an essential part of the social infrastructure for enriching people's basic needs. Murata will continue to respond to society's needs with constant innovation and promote the evolution of components. Murata's components are broadly and deeply rooted in society and support people's everyday lives.

#### Solving social issues

Electronics are also widely used as tools for solving social issues. Murata will not just provide components but will utilize electronics as a breakthrough to pursue sustainability of the Earth and society. Murata's innovations will accelerate the realization of an unrestricted, more convenient future.

#### Practicing sustainable operations

Murata will innovate to reduce the impact of our business operations on society and the environment. We are committed to realizing our business processes that are in harmony with society.



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Murata will be the best choice for customers and society

Further, for companies to respond effectively to social issues requires them to take certain risks, including upfront investments and short-term cost increases. To make this level of response sustainable, we must view social value as "yet-to-be-realized financial value" that will transform into "financial value" in the future. With that, we will link these efforts to medium- to long-term profit generation by strengthening business competitiveness and creating business opportunities.

It has been three years since I became President, and the level of understanding within the company regarding the continuous cycle of social and economic value has increased. Concerning Murata's response to climate change, we clarified our long-term direction by becoming one of the first in the industry to become a RE100 member. We are focusing on promoting renewable energy and energy conservation at our factories and business sites. To promote renewable energy, we

are deploying the renewable energy system combining solar panels and storage batteries that we introduced at Kanazu Murata Manufacturing Co., Ltd. (Fukui Prefecture) in 2021 to our other factories worldwide. As of the end of March 2023, we are operating energy-saving systems at five total factories.

Going forward, we will expand these initiatives to each site in the Murata Group with an aim to showcase these efforts and products to customers. We have already accumulated a large volume of data by implementing these initiatives. We would then like to link this information to increased business and customer opportunities.

It is essential that these initiatives to realize a sustainable society involve the entire supply chain. The company will actualize a continuous cycle of social and economic value by being the best choice for our customers, suppliers, and stakeholders and by creating this value together.

## Achieving value creation by taking 3-layer portfolio management to a higher level

Next, I want to reiterate our approach to 3-layer portfolio management, the core of our growth strategy, and explain the background of our related initiatives. Although the company deals primarily with electronic components, our approach to work and the required skills differ depending on the business.

In the 1980s, the company contributed to the miniaturization of televisions and transistor radios by making components lighter, thinner, shorter, and smaller. From that came the standard-products business called the first layer (components). In the 1990s, the development of mobile phones resulted in differing customer requirements. As a result, the second layer (devices and modules), the application-specific components business in which we coordinate technical aspects with each customer and develop new products, was established. In the 2020s, 5G was introduced and is used not only in smartphones, but in areas such as medical networks, preventative maintenance of factory equipment, and autonomous vehicles. For Murata to continue to demonstrate its presence as the use of electronics expands, it will be necessary to supply conventional hardware and provide solutions that incorporate software. In other words, we believe that the definition of components will change, and we are positioning this as the third-layer of business.

These 3-layer portfolios are closely related, influencing one another in terms of technology and sales as we aim to expand our business. As the value sought by customers changes, we will create synergies among each and aim for the further growth of Murata. The initiatives for each layer are as follows,

The first layer of capacitors and inductors/EMI filters is the company's core business. Future technological trends are clear. Products for the consumer product market, such as smartphones, must be lighter, thinner, shorter, and smaller. Those for the mobility market need to be high-quality, highly reliable products that can withstand high-voltage, high-temperature environments. We believe that the market growth rate over the medium to long term will be approximately 10 percent, so it is necessary to increase production capacity in response to the anticipated growth. Annual production of the company's multilayer ceramic capacitors is over 1 trillion units and expanding that capacity will require significant human resources and capital investment. Since it will be difficult to rapidly increase capacity because of significant demand, we are proceeding with capacity expansion from a medium- to long-term perspective. To accelerate initiatives that strengthen these technological and supply capabilities, we will promote our vertically integrated production system and ensure our positioning as a leading company in the industry by improving our business efficiency.

In the second layer, we decide on our target customers for each application. The success or failure of that business depends on whether we can establish technology that differentiates us from competitors. Similarly to the first layer, we will utilize Murata's unique technologies and manufacturing expertise in the high frequency devices and communications modules category, such as RF modules and SAW filters. Looking ahead to 2030, we must also adopt measures such as acquiring technologies that the company lacks through M&A activity and undertake initiatives to

demonstrate the superiority of our products in terms of characteristics and structure. Specific to customers in the smartphone market, we are gradually starting to see the fruits of our efforts to strengthen our support system at overseas sites. Although we are still increasing our market share, we would like to enhance our presence by promoting initiatives that customers will select for QCDS.\*

With battery and power supply, we are reviewing our business portfolio of lithium-ion secondary batteries and have been focusing on high-capacity cylindrical batteries for power tools, gardening tools, vacuum cleaners, etc. Although demand in our focus markets is stagnant and an improvement in earnings is delayed, we aim to establish an environmental business foundation that includes storage batteries.

Our sensors' focus is on the mobility market. We are starting to see products with outstanding features, including MEMS inertial sensors that can measure vehicle position, attitude, and direction with higher precision and ultrasonic sensors for peripheral detection necessary for automatic braking and parking. We hope to capture business opportunities in the growing market by supplying products that our competitors cannot imitate.

The third layer targets new business areas, including solutions. As is the case now, not all customers will be familiar

## Creating innovation by leveraging diversity

The source of our value creation today is our strength in human and organizational capital. The passion of our founder has permeated throughout the company in the form of the Murata Philosophy, which is our management vision and code of conduct for every employee. A sense of belonging and contributing to the organization is essential to Murata's unique vertically integrated business model. Further, the ability to cooperate with one another to solve issues quickly is what sets Murata apart today.

Additionally, high homogeneity is also an issue facing organizations. To foster innovation, we need to leverage diversity to create different mechanisms and ways of working together. When working with people with different backgrounds, including gender, generation, and culture, it may not be possible to move forward effectively and efficiently using conventional ways of doing things. Accepting and attempting to overcome this opportunity will enable more in-depth discussions. Creating an environment where employees with diverse values and ways of thinking can respect each other's differences and engage in animated discussions will lead to the creation of innovation.

Murata established autonomous and decentralized organizational management as one of the growth strategies in Vision 2030. We expect each employee to act with

with electronic devices and design. Given that, we cannot respond with the technologies and experience we cultivated through conventional business models. What we need to do now is to create a business model from a long-term perspective. During the Medium-term Direction 2024 period, we would like to build small successes and determine what kind of value Murata can provide to our customers. As we move ahead with the third-layer business, we will implement these products within the company to allow customers to see and experience them, which will become a new way of selling. Having customers come to us also creates a synergistic effect of increasing the motivation of employees working on-site.

Currently, the first and second layers are the pillars of our business, but we are highly dependent on the first layer for profits. This is one of our central management issues, and we need to develop multiple revenue sources. Firstly, we must improve earnings in the second layer. However, we will also take on various challenges in the third layer with a view to 2030 and beyond. By continuing to work to solve the issues faced at each layer and demonstrate synergies, we will strive to achieve higher level 3-layer portfolio management aimed at further value creation.

\*Product assessment indicators referring to Quality, Cost, Delivery, and Service

autonomy, collectiveness, and evolution. Until now, the company has been able to respond to issues with a sense of speed by each organization in each department. However, there are times when I still feel that what is done at one site may not be deployed at another or that people need to learn what other departments are doing. We aim to be a strong organization capable of making decisions based on overall optimization and tackling initiatives flexibly while being mindful of the outside world and taking a global perspective. I provide opportunities for discussions across sites and departments, highlight good examples through internal communication tools, and introduce them to employees worldwide. In this way, we increase each employee's understanding and ensure that autonomous decentralized behavioral practices are part of our culture.

An example of what we introduced throughout the company is collaboration in monozukuri (manufacturing). Our manufacturing factories have different peak seasons depending on the products they produce. There is an overlap between a factory with greater human resources needs during peak periods and a factory that wants to create employee opportunities during slower times. Human resources are shared and dispatched to meet the ebb and flow of worker need. This initiative began with feedback

from factory members and has become an excellent source of motivation for employees on both sides. We believe that each factory had a clear sense of the issues, that there was a system in place to communicate these concerns, and there was a mindset to accept the outlined issues that led to "voluntary support that transcends business operations." A significant factor behind this was the interaction and personal connections we had on a routine basis. This is an example that embodies autonomy, collectiveness, and evolution.



## Promoting DX and maximizing its value

The company promotes Digital Transformation (DX) as one of the growth strategies of Vision 2030. In recent years, in-house DX initiatives have become more active. At manufacturing sites, we made progress in data visualization that contributes to improvements in production efficiency, including production lot management, the development of a process flow, and equipment maintenance. In addition, digitalization improvements are becoming more evident at factories and business sites worldwide. However, although the KGIs and KPIs markers we set improved, they remain at the level of digitalizing how work is done and have yet to reach the point of changing the work itself. By changing how we work, the organization will eventually evolve, and the KGIs and KPIs we aim for will follow suit.

Excessive standardization of production processes and systems may lead to production inefficiency. Given that, we

must first identify areas that should be standardized and then leverage digital technology to enable smart factories. At the same time, we would like to foster an environment where employees at manufacturing sites can spend their time engaging in work that allows them to demonstrate a higher level of creativity.

Promoting DX is also essential in strengthening the "power to sell," such as the planning and execution of customer strategies. The company has the opportunity to do business with customers in a wide range of industries globally and has access to customer information that could be considered big data. We want to maximize our customer offerings by converting this data into value and changing how we engage in sales activities, including the way we approach and communicate with customers.

## Investing in the future and realizing Vision 2030 and Medium-term Direction 2024

As I mentioned at the onset, fiscal 2023 is expected to be a severe business environment for the company. Under these circumstances, we will complete cost reduction themes, including quality improvements, and optimize fixed costs to improve short-term earnings. In fiscal 2024, the final year of Medium-term Direction 2024, we would like to demonstrate the results of our portfolio management.

Looking ahead to 2030, the electronics industry in which we operate will achieve even greater growth due to the development of 5G and 6G communication networks and the adoption of autonomous driving. Because of this, we will continue to invest in the future and work to realize

Vision 2030 and Medium-term Direction 2024, ensuring that Murata's leadership position is well established in the years to come.

As the Global No. 1 Component & Module Supplier, the company will continue to develop exciting technologies, innovations, and products that meet stakeholder expectations. We are focused on business opportunities in the core fields of communications and mobility and the challenge fields of environment and wellness. We want to ask for your continued support.