



# Murata report 2017

Corporate Report  
CSR Report



[www.murata.com](http://www.murata.com)  
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English version



## Innovator in Electronics

Murata's components are everywhere. Though often unseen, our products are essential parts of the electronic devices you are using throughout each and every day: mobile phones, computers, cars, home appliances. More and more, Murata products are found in many new kinds of applications, such as healthcare devices, automobiles, and energy management systems.

### Innovator in Electronics

The world keeps on changing.  
The world of electronics is changing even faster.  
As an Innovator in Electronics, Murata has always followed its corporate philosophy of contributing to the advancement of society and the electronics industry.  
Moving forward, we will continue to anticipate and consider the needs of the global society and our customers, and to develop advanced technologies and high-value applications. We will keep on innovating and shaping the future of the world of electronics.



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In this brochure, "Murata" refers to the Murata Manufacturing Group as a whole.





# Murata Philosophy

Firming up our foundation and gathering the group's energies to spring ahead

## The First Year of Mid-Term Direction 2018 —Strengthening Our Foundation

Murata aims to maintain sustainable growth as the world's top supplier of components, and to guide the company's activities we have created Mid-Term Direction 2018 as a three-year plan. Murata's business has doubled in the last five years. With this and other significant changes taking place in the business environment, we utilized FY2016—the first year of the plan—to strengthen our business foundation.

In Murata's core market—communications—growth has slowed in the production of standard cellular phones, but with a shift toward more advanced features, we are seeing strong growth in components for smartphones. Various types of module technology and RF technology form the basis for the extensive range of Murata's product lines, from individual components to modules, through which we provide new value to customers on a daily basis. We answer the demand from customers with a deep catalog of products and a steady system of supply enabled by good supply chain management.

## Combining technologies with the strengths of our personnel to take us into the future

We plan to strengthen our core business—communications—while working to expand business in such key markets as automotive, energy, and healthcare. Murata has recently entered into new partnerships and made acquisitions. Our aim now is to integrate newly acquired technologies and ideas with our own technologies and expertise built up over time to achieve sustainable growth.

We will also work to enhance our *monozukuri* (manufacturing), technology development, and human resources development, along with other fundamental areas of doing business. Murata is a global enterprise and we employ people in many locations worldwide. We therefore actively embrace a policy of diversity and inclusion that we are promoting groupwide. At the same time, we continue to treasure the Murata Philosophy, the foundation of our corporate culture.

As an innovator in the electronics industry, we put our full effort into supporting our customers to allow them to carry out their vision. I would like to once again express my sincere gratitude to our customers and many other stakeholders for their support, which has led to Murata's growth. We will do everything in our power to continue to build the future of electronics together with you all.

Chairman of the Board and President



## We contribute to the advancement of society

by enhancing technologies and skills  
applying scientific approach  
creating innovative products and solutions  
being trustworthy  
and, together with all our stakeholders,  
thankful for the increase in prosperity.



# Murata technologies

## Shaping the future of electronics

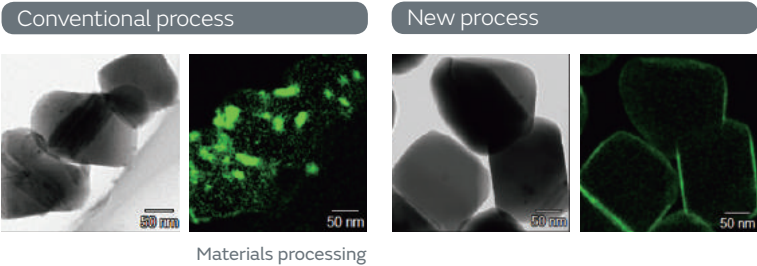
Murata has built an integrated system of production from raw materials to finished products, and we are continuously developing and accruing our fundamental technology base, such as materials technology, front-end process technology, product design technology, back-end process technology and analytical technology. We also aim at creating new markets and innovations by actively collaborating with outside partners and by developing core technologies and products that anticipate the future.

Where innovation begins

Perfected techniques

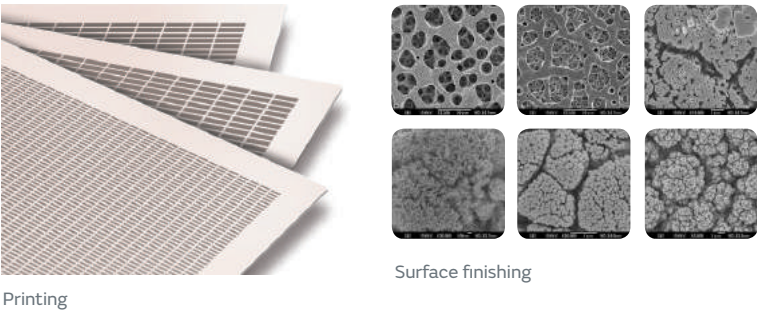
## Materials technology

“New electronic devices begin with new electronic components; new electronic components begin with new materials...” Based on that concept, Murata has created functional ceramic materials with outstanding characteristics. And we continuously further advance our technology through the development of new materials with even better characteristics.



## Front-end process technology

Front-end process technologies enable us to produce designed functions in the best possible way, and it plays an important role in the miniaturization, slimming down, and high functionality of electronic components.



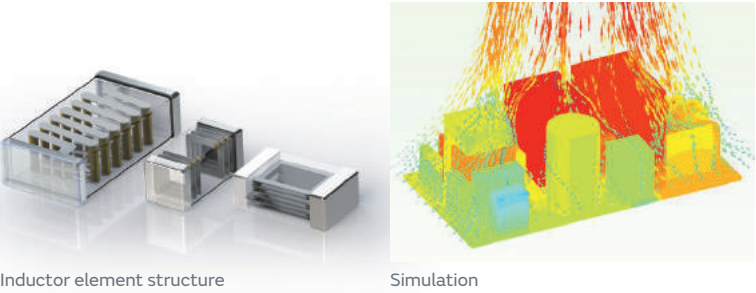
Shaping the future

Making innovation happen

Attending to detail

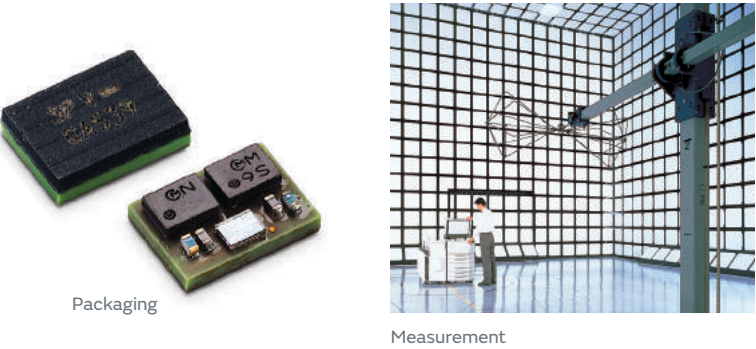
## Product design technology

From single-function components to modules and on to total solution proposals, the value that Murata has provided over the years continues to evolve. We are involved in development of the technologies and products that can promptly respond to customer needs with an eye on the future.



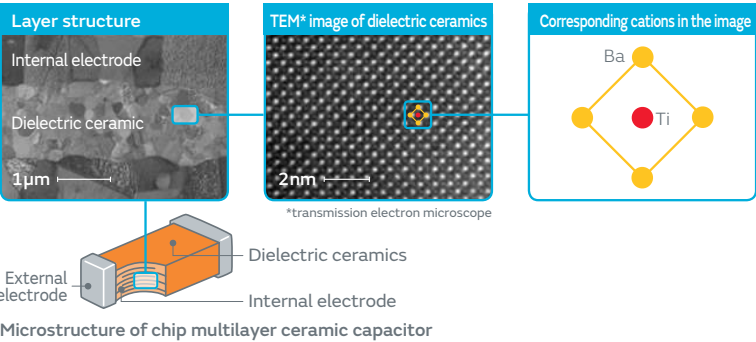
## Back-end process technology

Thanks to our own production facilities and strong manufacturing (“monozukuri”) expertise, we possess numerous technologies and know-how to mass-produce products stably and efficiently.



## Analytical technology

Efficient use of scientific analytical methods to confirm physical and electrical properties, composition and structure of materials, together with Murata’s advanced failure analysis systems, provide peace of mind to our customers.





# Products by application

## Technologies with applications far beyond the smartphone. So special we call them “magic wand” technologies.

— Murata is prepared for the coming boom in connectivity. —

The smartphone is a gadget that hardly ever leaves one's hand. It allows us to communicate not only by voice, but by exchanging email, interacting through social media, playing games, sharing pictures and video, and so on. Data transmission speeds and phone storage capacities continue to improve, and as communications services expand, smartphones are bound to become more advanced in terms of performance and functionality.

RF components, with their modular design and compact structure, sensors that improve functionality and operability, and low-loss capacitors and power inductors all help Murata contribute to the evolution and growth of the communications sector.

### Chip multilayer ceramic capacitors

Indispensable to electronic circuits, these components serve to store and adjust flows of electricity. They are key to the advanced functionality of smartphones and other mobile devices, and as they continue to become thinner and more compact are increasingly being incorporated into such information devices.



### Inductors (coils)

When electricity flows through these inductors, which are also called coils, a magnetic field develops and that current is affected. These inductors are used in radio circuits, power supply circuits, and more.



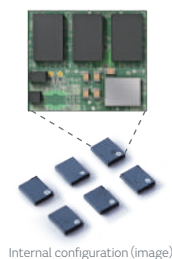
### Microwave coaxial connectors

Microwave coaxial connectors transmit radio frequency signal between circuits. They contribute to the development of high-performance communication equipments, such as smartphones, tablets and wearable devices with smaller and thinner size.



### RF modules for cellular phones

These modules support the multiple frequency compatibility of smartphones. They combine a power amplification (PA) function with the conventional function for changing and filtering frequencies. By adding even more functions, they contribute to reducing the thickness and improving the transmission speed of smartphones.



### SAW filters

The filters that extract only the required portion of a radio signal are key devices in high frequency circuits. With its unique miniaturization technology, Murata helps RF circuit downsizing.



### Connectivity modules

Enabling various devices to access the Internet via radio signals, these modules lead the trend towards increasing multifunctionality and IoT in smartphones and in-vehicle equipment.



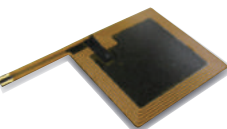
### MetroCirc™

A multilayer bendable resin substrate that combines Murata's monolithic multilayer production technologies with organic material. It can be used for RF and digital signal transmission wires, antennas, and much more, enabling the development of components of any shape with exceptional RF characteristics.



### NFC (near field communication) antennas

Used in equipment that provides electronic payment services—convenient systems for quick cashless payments at the point of sale. The data exchange takes place using an NFC antenna in the consumer's personal device (mobile phone etc.) and the payment terminal.



## Doing what you want, when you want to.

— Murata simplifies things with not-so-simple technologies. —

Thin notebook computers, tablets, and other carryable devices have become essential to people's lives, from students to working adults. They can even be used for illustrating, gaming, and video editing.

Murata's ability to make electronic components smaller and thinner, plus our sensing technologies and high-density mounting technologies all contribute to improving the performance and functionality of computers. Our wireless communication modules that enable connectivity with low power consumption, and sensors that improve usability, are examples of how Murata supports next-generation computing.

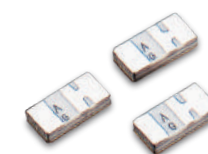
### Low ESL chip multilayer ceramic capacitors

Capacitors with low equivalent series inductance (ESL) and superb RF characteristics are ideal for power supply decoupling in high-speed electronic devices.



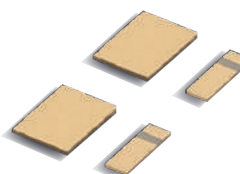
### Shock sensors

These are electronic components that apply piezoelectric ceramics to change acceleration and vibration into an electrical signal. They are used mainly with HDDs as sensors for preventing the writing of data when an impact is received from an external source.



### Actuators

Piezoelectric actuators employ piezoelectric ceramics that deform under a voltage, making them ideal for the microscopic positioning of the magnetic head in hard disk drives.



## Computers

\* The "Global share" indicated on each page refers to the worldwide share of that particular industry, and is not the share of any corresponding application. Furthermore, the noted shares are merely estimates made by Murata and may differ depending upon the market or the application.



## Automotive electronics

### Vehicles that are eco-friendly and easy to drive rely on advances in electronics.

— This gives Murata plenty of opportunity for the future. —

Society is moving toward providing all citizens with safe freedom of movement while protecting the environment. The goal ahead is autonomous vehicle technology. Murata is accelerating the pace of technical innovation to make self-driving cars practical.

Murata's electronic components are used in various automotive systems, including safety equipment, driver assistance, power trains, and telecommunications, evolving together with vehicles to deliver high reliability under extreme conditions.

#### Combined gyro sensors and accelerometers

Changes in acceleration and in gravity can be handled as changes in capacitance in order to detect acceleration values and the angle of rotation. This sensor is used in areas in connection with the basic performance of automobiles, such as in the Electronic Stability Control (ESC) for the chassis and in the car's Anti-lock Brake Systems (ABS).



#### Ultrasonic sensors

This sensor can measure distance according to the reflex time of the ultrasonic waves that are generated by oscillating piezoelectric ceramics. It is used especially for the rear sonar in parking assistance systems.



#### DC-DC converters

This thin, lightweight DC-DC converter uses a Murata-proprietary control circuit and sheet transformer. Using this one DC-DC converter, voltage can be supplied to the circuit unit of each block that requires insulation (the low-voltage battery input circuit unit, high-voltage battery input circuit unit, and AC commercial voltage input circuit unit).



#### Chip multilayer ceramic capacitors

Maximizing the heat resistance of ceramics, these highly reliable capacitors are able to demonstrate their excellent performance even under harsh usage environments. They are, thus, naturally utilized in applications that require high reliability, such as in ECUs, drive control units and safety devices, as well as being widely used for infotainment like audio and navigation.



#### Power inductors

Electronic control systems are becoming standard in more vehicles today. Power inductors are used to efficiently produce the various voltages needed by circuits. They are also designed to control the noise generated by electronic devices.



#### Timing devices

These are component parts that generate the clock signal in combination with the IC. As electronic outfitting of automobiles progresses, communication between ECUs is needed and timing devices that deliver a highly accurate, high quality clock signal are called for.

#### Ceramic Resonators (CERALOCK®)



#### Crystal units



### Enhancing your home, Murata is a hidden partner making life better.

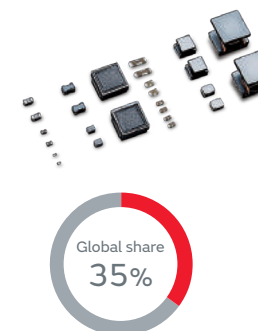
— Smart, economical and stylish. —

A TV that remembers your favorite shows. Air conditioning that cools only those areas where people are and that emits negative ions into the air.

Sensors, ionizer modules, and high conversion efficiency power supply modules support the latest systems to make your home and life "smart" and ecological.

#### Chip EMI suppression filters (Chip EMIFIL®)

Digitization of audio-visual equipment and home appliances is advancing and the high-speed clock signal that flows inside those devices may sometimes have a negative influence as electromagnetic noise. Chip EMI suppression filters prevent such malfunctions caused by noise and other factors, and simultaneously contribute to the high definition and high-quality sound in audio-visual equipment.



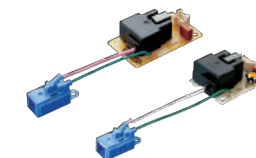
#### Thermistors

Elements whose resistance changes with temperature fluctuations used in heat sensors, circuit protectors, heaters, and other systems. They are components that protect ICs, power supply circuits, batteries, and the like from excessive current and overheating by maintaining control and proper operation based on temperature.



#### Ionizers / active oxygen modules (Ozonizers) (Ionissimo®)

This device ionizes air molecules (gives them a plus or minus electric charge). Deodorization, disinfection, anti-mold, antiviral, anti-static, electrification and other effects can be achieved by ionizing the air and adding certain characteristics.



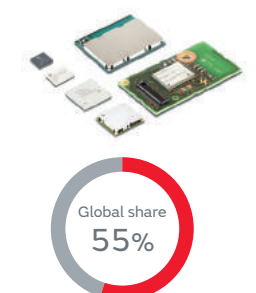
#### Polymer aluminum electrolytic capacitors

These are high capacity capacitors that are characterized by having a low profile and low ESR. They handle the stabilization of voltage in circuits where serious voltage control is demanded, and contribute to the advanced features in audio-visual equipment.



#### Connectivity modules

Murata's communication modules are based on proprietary materials technology and processing technology, and meet customer's needs for improved functionality and compactness of set products with high reliability.



## Audio and visual / Home appliances

\* The "Global share" indicated on each page refers to the worldwide share of that particular industry, and is not the share of any corresponding application. Furthermore, the noted shares are merely estimates made by Murata and may differ depending upon the market or the application.



# Target markets

## Shaping the future

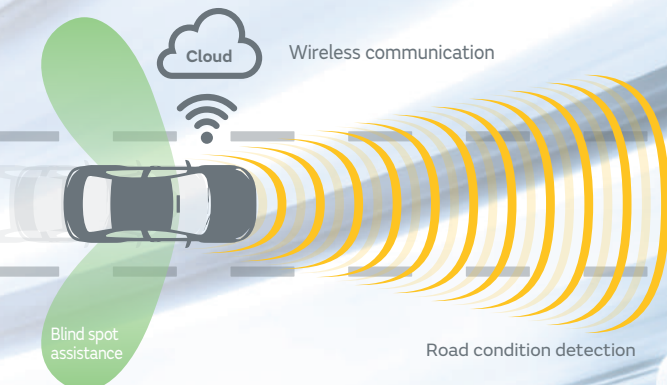
With the increase of digitization and IoT providing connectivity across industries, the boundaries of electronics are expanding. New needs for the smart society are emerging. In response to these expanding needs, Murata will strive to provide new value based on deep know-how in sensing, telecommunication, miniaturization and other technologies.

In addition to the communications market, we supply unique products and solutions to the automotive, energy and healthcare markets, and contribute to the advancement of a safer, healthier, and more enjoyable society.

Murata contributes to the advancement of a safer, healthier, and more efficient society.

## Safety on the road

In the very near future, fully-or semi-autonomous, environmentally friendly vehicles will safely connect the driver, road, other cars, various networks and travel services. Murata is contributing to this future vision by supplying components and solutions for advanced driver assistance systems, connectivity and electric vehicles. Because of the high reliability of our products, we help provide peace of mind to our customers.



Advanced Driver Assistance Systems (ADAS) improve road safety. These systems combining various technologies such as software, sensing and connectivity help detect driving environment, communicate with other cars or services, and control the whole driving process.

## Smart healthcare

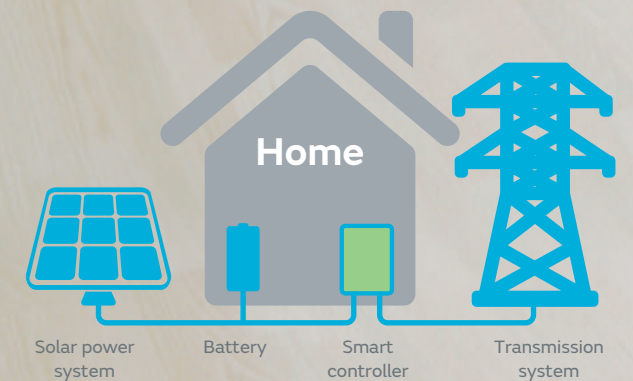
Aging populations in developed countries and expanding medical services in emerging countries are increasing the demand for better and more efficient healthcare. Murata contributes to the development of medical technology by bringing together our own proprietary technologies and continually providing customers with new value. We meet our customers' needs with compact, highly reliable products, from non- or less-invasive medical devices to medical IT solutions.



By sensing and communicating patient information, such as biological data, in real time, Murata makes more effective prevention and earlier treatment possible. In addition to in-hospital care, the utilization of in-home and remote monitoring services is also expected to grow.

## Energy savings

In a world where sustainable energy solutions are spreading, smart sensing and communications technologies are needed to make energy systems more efficient. Murata contributes to this energy-saving movement by working to miniaturize components, develop high conversion efficiency power supply modules, and compact, high output stationary batteries. We also utilize communications and sensing technologies that enable, for example, management systems that make power consumption visible.



A smart home energy management system (HEMS) allows the free choice of energy source based on various conditions to optimize energy consumption overall.

## Expanding boundaries of electronics...

...increasing market opportunities





# Financial highlights

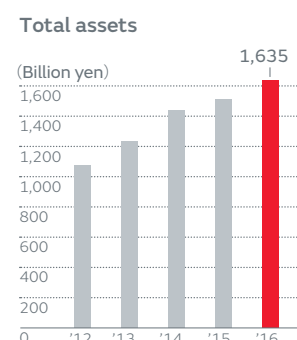
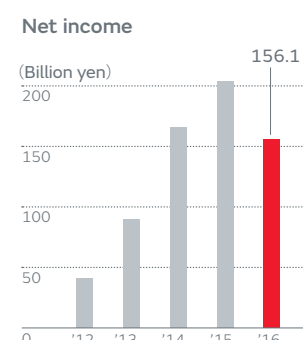
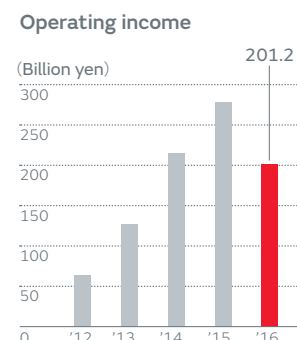
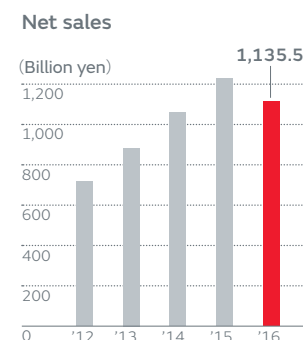
## Murata is constantly developing new products for a world of connectivity.

Demand is moving toward electronic components that are smaller and thinner with higher performance and reliability.

Today, smartphones account for close to 90% of the mobile phones in use worldwide. With the spread of LTE handsets that support multiple frequency bands and carrier aggregation, higher data rates are anticipated in the future, along with even higher performance and more multifunctional uses. Also anticipated in the field of automotive electronics, as the range of electronic components grows, are improved safety features like Electronic Stability Control (ESC) and conveniences like infotainment.

The demand for electronic components supports the trend toward smaller and thinner dimensions, higher performance, and higher reliability.

In fiscal 2016, with the rapid rise in the value of the Japanese yen against other currencies and a decline in sales of communication modules, we experienced a decrease in income and profit from the previous year in a sector that had been looking strong. In fiscal 2017, we will steadily launch new products, focusing on our core area of chip multi-layer ceramic capacitors and piezoelectric components, as well as component products. Also, we will be expanding our lineup of communication modules that integrate component embedding and multilayer construction technologies.



**Net sales**  
**1,135.5** Billion yen

**Operating income**  
**201.2** Billion yen

**Net income**  
**156.1** Billion yen

**Total assets**  
**1,635** Billion yen

## Sales by product

Murata's strength is in modules and compact, high-performance components.

### Capacitors

Sales increased further for our micro capacitors and tiny, high-capacity capacitors used in smartphones and other communication devices. In the automotive field, the demand for high-reliability capacitors has been growing with the increasing use of vehicle electronics. Both areas are particular strengths for Murata.

### Piezoelectric components

Sales of SAW filters increased as smartphones began to support multiple frequency bands. The demand for ultrasonic sensors in driver assistance systems is increasing as well.

### Other components

Sales of high frequency coils and metal coils for smartphones increased. In the automotive electronics market, sales also grew in EMI suppression filters and MEMS sensors used for electronic stability control (ESC), both trends that are expected to continue.

### Communication modules

The number of components per handset is increasing as smartphone data rates increase and handsets incorporate multiband capabilities and become more multifunctional. There is an ongoing move toward modularization, in which multiple components are integrated for such purposes as reducing the area occupied by the RF section or to more efficiently utilize the communication circuit space, and demand for RF and connectivity modules is expected to continue rising in the future.

### Power supplies and other modules

Sales expanded further for power supply use in the energy sector, data centers, and servers.

## Sales by application

Sales have been growing with a broad range of products that contribute to convenience, enjoyment and safety, and we continue to expand the markets we work in by launching new products.

### Communications

The widespread use of LTE smartphones and evolution of carrier aggregation\* are driving higher data rates. At the same time, demand is increasing for a wide range of component parts such as small and micro-size high-capacity, high-end capacitors, SAW filters, and high frequency coils, as well as modular components like RF modules for cellular phones and connectivity modules, and functional components like MetroCirc™. Sales volume declined in fiscal 2016 due to the rise of the yen and stagnant sales of communication modules, but in fiscal 2017 we will launch and promote unique, new products to capture demand and expand sales.

### Computers and peripherals

Despite somewhat sluggish sales in tablet computers due to smartphone displays getting larger and the depressing effect on sales of the strong yen, the demand for notebook PCs and servers has remained strong.

### Automotive electronics

With the increasing use of electronics in vehicles, there has been a concomitant increase in sales of automotive capacitors that feature high reliability, MEMS sensors for electronic stability control (ESC) systems, and the ultrasonic sensors used in driver assistance systems. We also anticipate increased sales of connectivity modules for infotainment in the future. These trends indicate a strong demand for automotive electronic components that is outpacing the growth of actual units sold.

### Audio-visual, home and other

There was growth in sales of connectivity modules for digital cameras, but a decline in sales of capacitors and EMI suppression filters for game consoles combined with the effects of the strong yen resulted in sluggish sales overall.

\*Carrier aggregation: a service that enables a network operator to combine frequency bands to achieve much higher data rates

## New applications

For automotive, energy, and healthcare markets and the coming IoT society —Murata will more actively propose new value in all of these new markets.

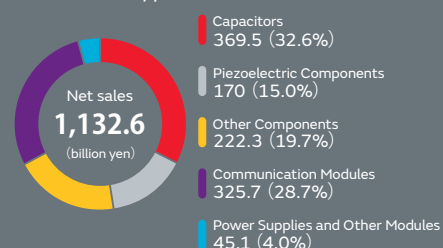
Murata is currently concentrating on:

1. The automotive market, where the demand for electronic components is expanding rapidly due to the advancing use of electronics in vehicles, the diffusion of advanced driver assistance systems, and the expansion of V2X communication technology
2. The energy market, where efforts are being made toward achieving efficient energy utilization and bringing energy savings to society
3. The healthcare market, where growth is expected as a result of an aging population having greater health concerns and electronics and information technologies being further integrated into medical treatments.

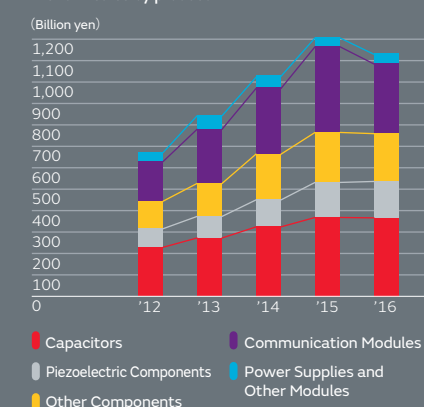
From a longer-term perspective, another growth factor will be the widespread adoption of IoT throughout society, where

devices and things of all kinds will be connected to the Internet. In these markets, Murata will utilize its cumulative expertise and strength in electronics (sensors, the ability to miniaturize components, and core wireless communications technology) to provide new value by bringing innovative change to these markets. We aim to work harder than ever to bring new and significant enhancements to society.

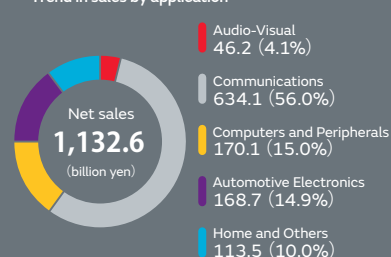
### Trend in sales by product



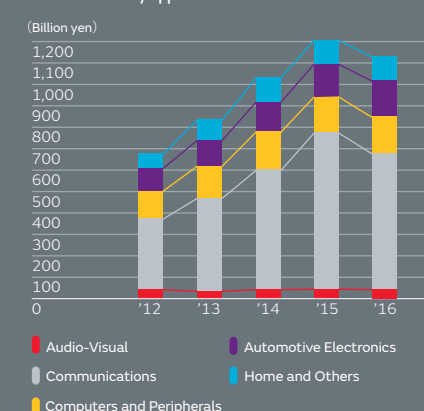
### Trend in sales by product



### Trend in sales by application



### Trend in sales by application





# Global network

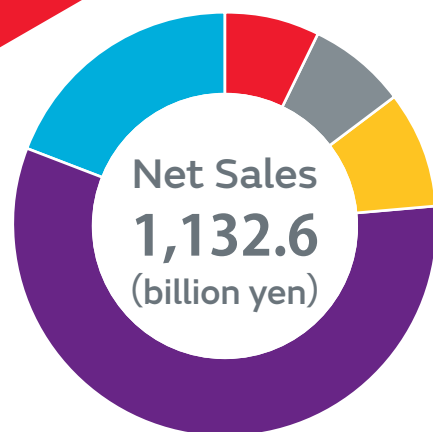
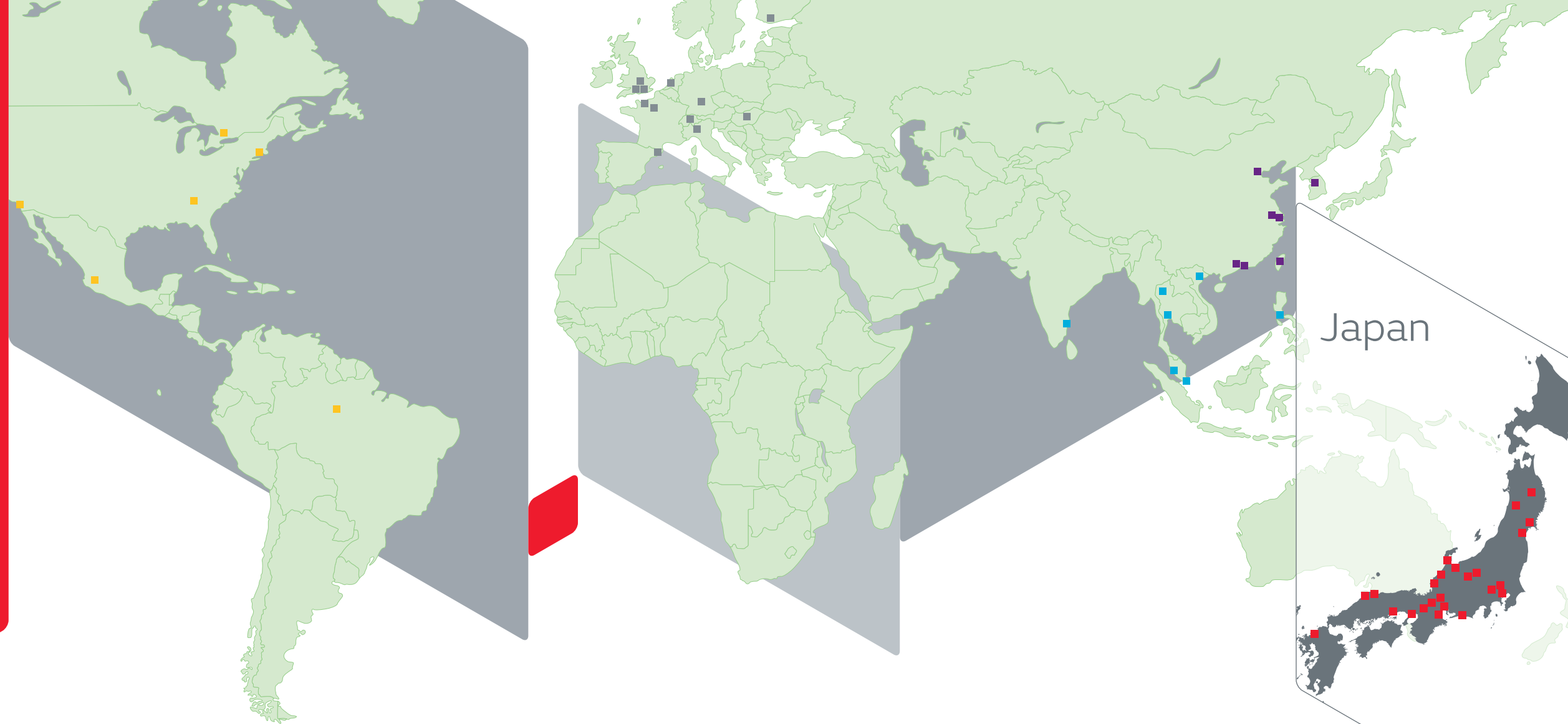
97 companies in many regions of the world.  
Wherever you find us, we are always Murata, ever innovative.

Over 90% of Murata products are sold outside of Japan; in Asia, North and South America, and Europe.

Not only do we adhere to the same customer-oriented policy at each of our sites, we also strive to be a beloved corporate citizen and trusted presence in every region.

Furthermore, each site recognizes itself as a member of the same Murata Group, moving together towards a common goal.

Around the globe, Murata works as one.



## Sales by area

- Japan 84.2 (7.4%)
- Europe 83.6 (7.4%)
- The Americas 102.6 (9.0%)
- Greater China 647.3 (57.2%)
- Asia and others 214.8 (19.0%)

\* Net sales, number of employees, and number of subsidiaries for each area are as of March 31, 2017.  
\* Net sales for each area are for electronic components and related products.

## The Americas

Net sales: 102.6 billion yen  
Number of employees: 1,001  
Subsidiaries: 11

*Global collaboration achieves global success!*

Globally, Murata's Business Engineering departments strive to provide innovation and services that directly contribute to Murata's overall business growth. IT "globalization" is a continuous challenge. Murata's regional IT sections embrace these challenges by offering steady business process improvements and innovative IT solutions. Murata America's mindset is to build trusted global teams. By establishing global trusted teams, foundations are set for high performance. Together with Murata America's sales and business development groups, Business Engineering recognizes the significance for our regional "design-in" contributions to Murata's worldwide business growth and sales expansion.

Murata Americas  
Applications Support  
Manager  
Karen Smith



## Europe

Net sales: 83.6 billion yen  
Number of employees: 1,510  
Subsidiaries: 13

*Work together in a team, utilizing the wisdom of all.*

Murata Elektronik GmbH in Germany supports customers in the DACH region (Germany, Austria & Switzerland) and Eastern Europe with a major emphasis on developing business in new markets such as Automotive, IoT, Healthcare and Industry 4.0, to mention just a few examples. Our operations in Europe are spread widely across many R&D, production and sales locations, with business handled either directly or through Distribution. The global operations of our customer projects need a strong and robust global Murata Network to support them as a team to work with very closely. We continue to develop business and particular projects with our customers as an innovative supplier for modules, systems and solutions.

Murata Europe  
Business Development  
Manager  
Joerg Wuestner



## Asia and Others

Net sales: 214.8 billion yen  
Number of employees: 17,084  
Subsidiaries: 17

*Investing on strong foundation to provide greater value to the business*

Philippine Manufacturing Co. of Murata, Inc. is a fast-growing Murata affiliate in the region. With the evolving market Murata is currently facing, much is expected from our company in terms of coping with the demand while accelerating the pace of expansion. In dealing with these challenges, we will rely on the strengths of our human resources, embracing the mindset that made Murata a successful organization. Our objective is to maximize our capability as a manufacturing company to support the growing and complex demand of the global market, and at the same time be a partner with other affiliates.

Philippine Manufacturing Co. of Murata, Inc.  
Finance and Accounting Section  
Assistant Manager  
Allan Javier



## Greater China

Net sales: 647.3 billion yen  
Number of employees: 15,424  
Subsidiaries: 25

*Sharpen more, the more light!*

I am in charge of shipping the products we manufacture at Wuxi Murata Electronics. As our business has expanded in China, shipping volumes have reached record levels, but we still need to pursue improvements in quality and service to achieve further growth. We plan to ship products quickly and flawlessly to meet customers' demands for QCDS (quality, cost, delivery turnaround and service), and offer service that exceeds their expectations.

Wuxi Murata Electronics Co., Ltd.  
MLCC Production Group  
Production Dept. 2  
Senior Manager  
Yi Cong



## Japan

Net sales: 84.2 billion yen  
Number of employees: 24,966  
Subsidiaries: 31

*Create of an attractive product.*

There has been tremendous growth in the automotive electronics, energy and healthcare markets, and the kinds of components and modules that people require is always evolving. Our business is based on trying to ascertain the needs of customers and markets around the world in every field, then developing and supplying products. To achieve sustainable growth under highly volatile market conditions requires that we collaborate well with related departments, customers, and suppliers. We need to further improve these working relationships if Murata is to create technologies that are consistently a step ahead. We aim to achieve progress for both the company and society by supplying appealing products that embody the total intellectual capital of Murata.

Murata Manufacturing Co., Ltd.  
Module Business Unit  
Communication Module Division  
Senior Manager  
Hideaki Nakamura





# CSR report 2017

Within the Murata Philosophy that has guided the company since its foundation, it states: “We contribute to the advancement of society by ... creating innovative products and solutions...” This is an expression of our strong desire to bring about more affluent, higher quality living for everyone through our products.

Murata’s products have played a key role in the miniaturization and increased capabilities of communication devices like smartphones, which have become an essential part of the social infrastructure. In the automotive sector, Murata already contributes to safer, more environmentally friendly driving. In the energy sector, we help find solutions to limited resources and environmental issues; and in the healthcare field, we support health and improvements in people’s quality of life. Electronics are vital to providing solutions, and Murata’s technologies play a big role toward that end. We also anticipate a societal transformation in the future with the evolution of wearable devices and the coming maturation of the Internet of Things/Everything, so we actively pursue technology development in these areas.

In addition to making contributions to society through our business, we must also work to resolve important global issues if we are to bring sustainability to society—addressing such issues as protection of the environment, human rights, and so on. One such area that the electronics industry has been involved in from early on is trying to solve the problem of mineral resources that come from regions of conflict. Murata has been earnestly tackling these issues in cooperation with our supply chain.

Furthermore, as a company that does business around the globe, we promote Diversity and Inclusion, and try to create work environments in which people can thrive without partiality to gender, nationality, etc. We respect everyone’s background and values, carry out personnel exchanges between our business sites in Japan and other parts of the world, and aim to provide the greatest value to society by sharing the Murata Philosophy and our direction with all of our employees worldwide.

In 2015, the Japanese government introduced the Corporate Governance Code, which calls for greater transparency in corporate management. With the Ordinary General Meeting of Shareholders held in June 2016, Murata transitioned to a corporate structure that includes an Audit and Supervisory Committee. Based on the spirit of the company’s philosophy, Murata is committed to building trust as we comply with all aspects of ethics in business, and we will continue to fulfill our social responsibility in cooperation with our stakeholders.

In promoting CSR management, we have established a CSR Management Committee that is based on a CSR Charter whose benchmark is that same Murata Philosophy. Murata will continue striving to be an open presence in the community and in society as a whole, endeavoring to remain worthy of people’s trust and respect as an enterprise so that our customers know they are in good hands when they do business with Murata. And through the ongoing activities of the CSR Management Committee, we will systematically promote CSR management aimed at the sustainable development of society.

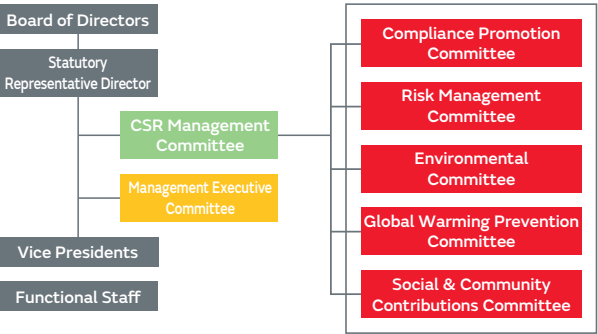
Chairman of the Board and President  
Chairman of the CSR Management Committee

## CSR charter (outline)

In line with the “Murata Philosophy”, Murata aims to continue to be a company that is trusted by society by committing to compliance with laws and regulations, as well as to highly transparent governance, respect for human rights, health and safety, social contribution and environmental preservation, on the basis of high corporate ethics. To these ends, Murata stipulated this CSR Charter as the norms to be observed by all those working at the Company.

Corporate governance	We will meet standards of accountability and enhance management efficiency and transparency, so as to remain open to our communities and society, and continue to be a reliable and respectable company.
Human rights and labor	We will respect the human rights and dignity of individuals.
Health and safety	We will improve product and service quality and boost employee morale by securing a safe and comfortable working environment and managing employees' health.
Environmental preservation	We aim to realize a society where people can live a healthy life with peace of mind, by reducing negative impact of our corporate activities on society, environment and natural resources.
Fair trade and ethics	We aim to maintain the highest standards of ethics, so as to be a company that fulfills its social responsibility and wins social trust.
Management system	We will establish a system that ensures compliance with this CSR Charter, and continuously improve the system.

## CSR-related committee organizational chart



## Our CSR Charter and CSR-related policy list

- CSR Charter
- Corporate Ethics Policy and Code of Conduct
- Human Rights and Labor Policies
- Occupational Health and Safety Policy
- Environmental Policy
- Purchasing Policies
- Quality Policy
- Disclosure Policy
- Basic Policies for Activities to Contribute to Society and Local Communities
- Basic Policy for Prevention of Cartels and Bribery

## Scope of report and information disclosure system

This report is written and edited with care to be concise in order to help readers easily understand Murata’s CSR concept and activities. Detailed information, case studies and environmental performance data from each plant are also provided on the Murata website. Detailed financial information can be found under “Investor Relations”.

## Term of this report

Between April 1, 2016 and March 31, 2017

\* Some activities taking place in or before March 2016 or in or after April 2017 are covered in the report as well.

## Organizations reported on

Murata Manufacturing Group  
(Murata Manufacturing Co., Ltd. and 97 subsidiaries inside and outside of Japan)





We contribute to the advancement of society through the spirit of the Murata Philosophy.

Murata Manufacturing Co., Ltd.  
Senior Executive Vice President  
Module Business Unit  
Representative Director  
Norio Nakajima

A message regarding CSR

## We fulfill our responsibility to society by embodying the Murata ideals

What is the most important responsibility toward society that Murata has? It is a responsibility to people. The electronics industry is a key Japanese industry that employs large numbers of people. As a leading enterprise in the field of electronic parts, Murata considers it essential both to provide a safe, pleasant work environment for workers in manufacturing and to train personnel on an ongoing basis. Also, as an enterprise doing business globally, we have stakeholders around the world who urge us to take action that will help to solve issues facing society. At Murata, we consider such calls for action to be an opportunity for growth. We therefore engage in various efforts, while carrying out business activities, aimed at protecting the environment, supporting human rights, and ensuring compliance to fulfill our social responsibility.

“We contribute to the advancement of society by ... creating innovative products and solutions....” This key line from the Murata Philosophy provides the perspective based on which we carry out business in the four areas of Communications, Automotive Electronics, Healthcare, and Energy.

### Communications

Murata's products allow manufacturers to make smartphones and tablets more compact and consume less power. Our products will also drive the building of IoT infrastructure, and eventually the IoE infrastructure of the future.

### Automotive electronics

Murata develops technologies with the long-term goal of achieving fully autonomous, self-driving vehicles to make the roads safer and more secure everywhere. We also aim to contribute to the development of electric vehicles in the future that emit no carbon dioxide.

### Healthcare

Murata's sensing technologies are used in medical equipment to help keep people healthy. In the future, we will be working to promote home healthcare enabled by network connectivity.

### Energy

The zero-emissions home that incorporates high-efficiency energy management systems is already a reality. Going forward, we will work to reduce the cost of such systems, and promote their adoption through factory showrooms and other means.

Murata would like to see a safe, convenient, and abundant world of the future. Critical to this effort is the Murata Philosophy, whose spirit we share with Murata employees around the world. Implementing the management principles embodied in the philosophy will ultimately lead to resolving societal issues, we believe. Also, we plan to utilize the talents of a diverse range of individuals to engage wholeheartedly in business activities for the advancement of society as a whole.

CSR Efforts at Okayama Murata Manufacturing

## Our employees implement CSR efforts in the field with a high degree of awareness.

At Okayama Murata Manufacturing Co., Ltd. (hereafter, Okayama Murata), employees in the Administration Department, Production Department are brought on board to become proactive in carrying out CSR activities. Okayama Murata was established in April 1992. This year marks its 25th anniversary, making it still one of the newer manufacturing plants in the Murata Group. CSR activities allow us to contribute to the local community and fulfill our duty to humanity and the environment, and we see the activities as important means of creating a bright future for Okayama Murata.

One important effort is creating a safe working environment in which people can feel comfortable. To raise awareness of the need to reduce overtime work and lead balanced work styles, we have officially designated every Wednesday as “Refresh Day” (no overtime day) for indirect workers. We also communicate to our direct workers that we don't let them work more than 60 hours a week. On top of this, we promote Murata's groupwide policy of “Diversity and Inclusion”. At Okayama Murata, we have given great thought to and have implemented measures that reflect our commitment to making the workplace comfortable especially for women and people with disabilities.

In the area of occupational health and safety, we found that a large percentage of work-related injuries were being caused by human error, so we pursued safety management vigorously with the goal of zero accidents under the slogan, “Follow the rules every time.” As part of that safety effort, we give risk simulation training to young, inexperienced workers, aiming to improve overall safety. Keeping our employees healthy is another important issue, and among the various measures we have taken is, with regard to mental health, the setting up of a counseling room for getting advice on personal troubles.

We are also putting a lot of effort into protecting the environment. Many production facilities in the Murata Group employ compressors for compressed air. At Okayama Murata we have taken measures to reduce the supplied pressure of compressed air, thereby leading to energy savings. We are replacing all lighting fixtures with LED bulbs and working to save energy with pumps, fan, and the like, which help to limit CO<sub>2</sub> emissions. Additionally, we are working to reduce the amount of water used in various processes and raise awareness of environmental protection within the scope of daily duties.

At Okayama Murata we have been deepening our ties with the local community based on the ideal of “Wanting the presence of Murata to be the pride of that area.” We greatly value customer satisfaction and employee satisfaction, to which we have added local satisfaction (CS, ES and LS). Our business site and its biotope are open to the public, and our employees travel to local schools to give lessons to children on the environment and science. Also, we participate in community events. Through these endeavors, we are trying to develop relationships with local communities. Our goal at Okayama Murata is to raise the trust we have built over the last 25 years even higher and be even more open to society and the local community.

Our employees work together to carry out CSR activities.

Photo (right to left) :  
Okayama Murata  
Manufacturing Co., Ltd.  
Administration Department  
Environment Section  
Kohei Iwasaki  
Okayama Murata  
Manufacturing Co., Ltd.  
Administration Department  
Administration Section  
Yuka Kamiya  
Masatoshi Nasu





MetroCirc™

Unique manufacturing is the spirit of our philosophy. MetroCirc™—its concept, implementation, and production are cutting-edge.

MetroCirc™ is a new multilayer resin substrate that combines Murata's monolithic, multilayer and design technologies with the high-performance resin materials of Ise Murata Manufacturing Co., Ltd. (formerly Primatex Inc.), a company newly added to the Murata Group. It has superior RF characteristics, is thin and bendable, and allows great freedom in circuit design. It has great potential for applications in wearable devices and IoT devices, and promises to give rise to new markets and new lifestyles.

Photo (left to right):  
Murata Manufacturing Co., Ltd.  
MetroCirc Business Division  
Masaaki Kanao  
Kiyokazu Aoki  
Masahito Tomimasu



Photo (left to right):  
Murata Manufacturing Co., Ltd.  
MetroCirc Business Division  
Nobuo Ikemoto  
Tomohiro Furumura  
Toyama Murata Manufacturing Co., Ltd.  
Production Dept. 3  
Koji Shiroki

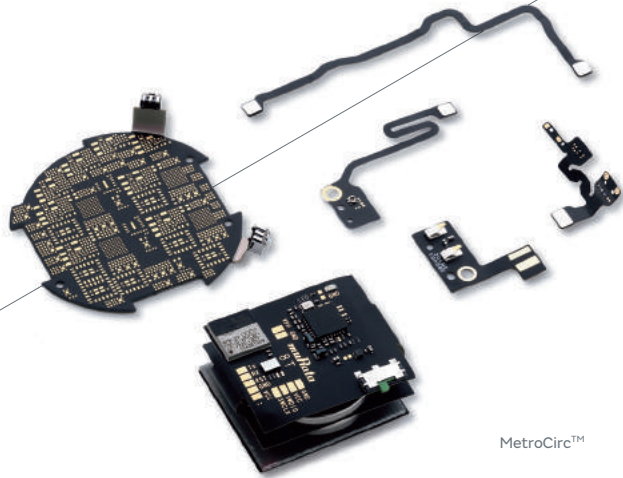
Note: This area normally requires the wearing of a mask, but masks were removed for the photo.

Philosophy

Murata's core business is ceramic materials, but we also have been pursuing organic materials and the acquisition and commercialization of applied technologies. These directions have led to the opening up of a new market for a substrate that allows electronic components to be built onto it—MetroCirc™. This development is based on our founder's desire for the company to do business not by interfering with rival companies but by innovating in the electronics industry.

Origami-Concept

MetroCirc™ substrates are manufactured at a smart factory that employs world-class equipment, a state-of-the-art security system, and other cutting-edge facilities. Because of their thinness and ability to be formed into any product shape, MetroCirc™ substrates have become known as "origami" substrates.



MetroCirc™

Diversity

Murata sends Japanese employees out into the world to do business, accepts loaned staff from overseas, and utilizes the talents of people of many different nationalities and backgrounds. Also, to achieve integrated production starting with materials, we acquired Primatex Inc. (now Ise Murata Manufacturing Co., Ltd.) in November 2016, bringing it in as new member of the corporate group.

Murata naturally wants to satisfy customers; we also value creating a sense of purpose among the members of the MetroCirc™ team. We are proud that a group of women autonomously formed a promotion team that provides attentive customer support and is making customers very happy.

Using our philosophy as a guide, we have integrated a different corporate culture to create something that had never existed before. While welcoming these new employees into our fold, we are looking forward to seeing MetroCirc™ contribute to the advancement of society.



Photo (left to right):  
Murata Manufacturing Co., Ltd.  
MetroCirc Business Division  
Ai Miyabayashi  
Misa Matsubayashi  
Rika Matsui  
Fumie Matsuda



Photo (left to right):  
Murata Manufacturing Co., Ltd.  
MetroCirc Business Division  
Lijun Zhao  
Chu Xu  
Toyama Murata Manufacturing Co., Ltd.  
Production Dept. 3  
Haruka Hiramatsu  
Murata Manufacturing Co., Ltd.  
MetroCirc Business Division  
Yijian Gu  
Wuxi Murata Electronics Co., Ltd.  
New Business Production Department  
Zhujun Yang  
Murata Manufacturing Co., Ltd.  
MetroCirc Business Division  
Byung No Bae  
Yanmeng Zhang  
Meng Xie





Health, safety and reduction in accidents

We are systematizing and restructuring occupational health and safety education

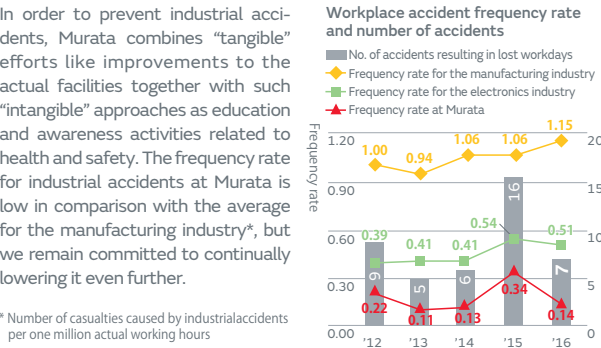
Occupational health and safety education consists of training and hands-on education aimed at preventing workplace accidents. Workers are made to understand the dangers associated with their jobs and are taught to take actions that ensure their safety. Currently, the people in charge of health and safety at every Murata plant are working together to restructure education in this area.

We are currently in the process of reworking the company's safety education system by first collecting all of the information on education being conducted at each plant and determining which things every employee in the company needs to know, and which things people handling specific tasks need to know. Then, we will be reviewing all of that information to produce more effective training, improve the educational content, and provide more focused training according to specific accident risks.

We are working to introduce hands-on safety education that simulates actual workplace risks such pinching, entanglement, and electrical shock. Through the experience we hope to raise awareness toward safety among all of our employees.



Photo (from left)  
Murata Manufacturing Company, Ltd., Yokaichi Plant, Administration Dept., Administration Sec. Takayuki Harada, Kenichi Sasaki  
Murata Manufacturing Company, Ltd., Environmental & Safety Management Dept., Environmental & Safety Promotion Sec. Masataka Mae



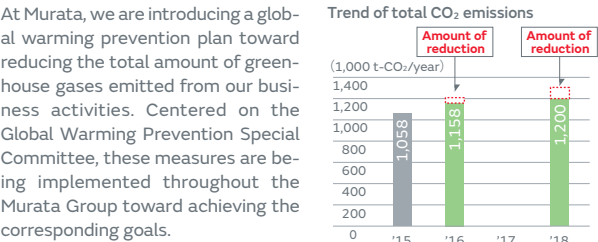
Prevention of global warming

Contributing to the mitigation of global warming through energy-saving activities that demonstrate our strength as an organization

Murata Electronics (Thailand), Ltd. (“Thailand Murata” below), located in Chiang Mai in Thailand's north, is Murata's second manufacturing base in the ASEAN region. Thailand is displaying rapid economic growth, and as a result, the nation's energy consumption is increasing annually. The government's energy policy has increased energy efficiency by almost 40% in one decade, and Thailand Murata is also actively working to conserve energy. An energy-saving framework, comprising such initiatives as the introduction of high-efficiency equipment such as LED lighting and operating improvements to increase the efficiency of the company's air conditioning system, has been implemented throughout the entire company organization, thereby reducing annual CO<sub>2</sub> emissions by 880 tons. This represents 2.5% of Thailand Murata's total CO<sub>2</sub> emissions. In the future, Thailand Murata will continue to fulfill its social responsibilities as a company doing business in Thailand, while working to provide a positive inspiration to the entire Murata Group with bases across the globe.



Photo (from left)  
Murata Electronics (Thailand), Ltd. Production engineering Dept. Maintenance engineering Sec. Phisit Rataphai  
Administration Dept. Environmental control Sec. Pongpat Sonpan, Thawatchai Jaimoon  
Production Dept. Production engineering Sec. Wirat Jankan



Conservation of resources and reduction of waste

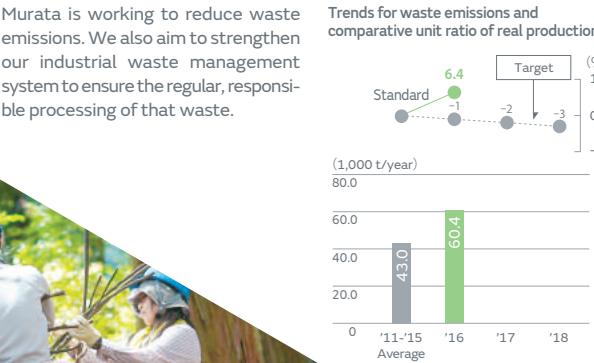
Securing multiple waste processing routes for times of emergency

Murata contracts with a waste disposal firm to handle industrial waste generated through production activities, and also carries out recycling. If an emergency situation were to arise, such as an earthquake or flood in which processing facilities are damaged, it is possible that Murata would be unable to get rid of its waste. In such a case, if the storage area became full, Murata's production would have to be halted.

To avoid this potential situation, Murata is securing other additional processing routes at all of its factories so that production activities will not be affected in an emergency. Waste processing not only takes care of unusable resources, but it plays an important role in supporting manufacturing. We are working with waste disposal firms to make sure that function is provided.



Photo (from left)  
Izumoto Murata Manufacturing Co., Ltd., Administration Dept., Environment Sec. Susumu Itohara, Tomohiro Hirano  
Okayama Murata Manufacturing Co., Ltd., Administration Dept., Environment Sec. Takayuki Kubo



Reduction in water usage

Effectively utilizing water resources with an awareness of water risks

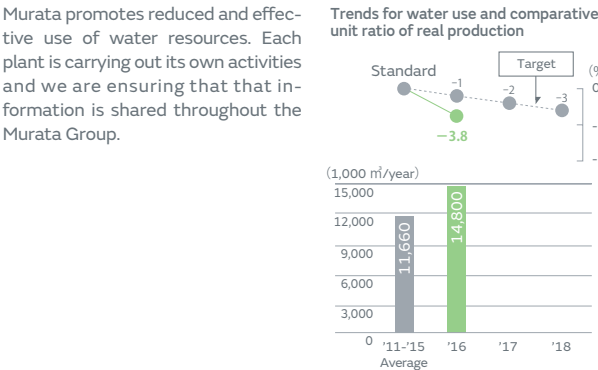
Water is a fundamental resource in people's lives; it is similarly essential to plant manufacturing. Water risks are therefore causing concern worldwide, as water shortages and water pollution become more serious due such factors as climate change and a rising global population.

At Toyama Murata Manufacturing, we take great care to use water resources efficiently. To improve our water recycling rate we have overhauled our coolant water system, and taken steps to optimize the use of water temperature. Such efforts have resulted in a usage reduction of 60,000 tons of water annually, approximately 3% in our factories overall.

Toyama Murata Manufacturing's plant is set in a location within Japan that is particularly blessed with an abundance of water. Especially for this reason, we are committed to taking thorough measures to protect water resources on into the future.



Photo (from left)  
Toyama Murata Manufacturing Co., Ltd., Administration Dept., Environment Sec. Naoto Kato, Takashi Yamada, Makoto Kubo





Diversity and Inclusion (D&I)

"Diversity and Inclusion" is part of our corporate culture, allowing everyone to thrive

Murata's employees come from all kinds of backgrounds. "Diversity" and "Inclusion" (mutual acceptance) are considered so essential to the innovation process that we have set up a committee in Japan to promote D&I—the Murata Diversity Inclusion Plaza (M-DIP). The diversity that Murata promotes cannot be considered visible, like gender or race, but is rather the acceptance of individuals' ideas, experiences, abilities, ways of thinking and work styles—those invisible qualities that define a person's character. At the same time, we do not shy away from conflict. We encourage a willingness to hear people out, and by so doing aim to bring about innovation. When people work with one another toward a common goal, even if their opinions differ, ideas get put forward that might never have occurred on a person's own. This is what leads to enterprise growth and is the reason we promote D&I.

Of the 15 people on the M-DIP committee, we spoke with three well-informed staff members who shared their thoughts with us based on their unique experiences.

Mr. Yoshioka, who had worked outside of Japan, expressed the importance of accepting differing world views and ways of thinking: "When you work in another country, there are really so many unknowns. In such an environment you have no choice but to observe others very closely. Since Murata does business globally, it is essential to have the desire to understand the people you are dealing with."

Ms. Kitao, a female engineer, described a significant shift in her thinking: "When I started working, I was the only female engineer in the division, and I was quite nervous and unsure of myself. But everyone around me gave me their support. I found that being able to discuss things freely and openly builds trust and enables each person to flourish. We learn to recognize the value of each other's input and can help one another to improve. I now really appreciate that way of working."

Ms. Furube spoke of her feelings of gratitude for "Inclusion" being practiced at her workplace, where she was welcomed back to work on a reduced schedule after returning from maternal leave: "At one point I was feeling unsure about being able to work and raise my baby at the same time, but I was able to overcome my concerns thanks to the warm support of others in the office who spoke to me. From that experience I learned how truly important it is to acknowledge and accept each other."

M-DIP members understand the importance of diversity and inclusion through experience. Murata wants to have more people within its ranks who are sincerely appreciative of one another and work with energy, knowing that differing views enhance the company's ability to respond quickly to business needs, and that innovation is sure to emerge when the individual talents of each person are brought out. At the end of the discussion, the three spoke about M-DIP's hopes for D&I at Murata.

D&I means bringing together the approaches, experiences, and abilities of diverse individuals, and allowing the clash of ideas to recombine in new ways that spark innovation. M-DIP therefore sees it as something important to Murata's growth strategy as the company sets its sights on advancement for society and culture.

We support individuality, encouraging it to thrive in the workplace

Photo (from left to right):  
Murata Manufacturing Co., Ltd.  
Sales & Marketing Unit  
Japan Sales Division  
Kenichi Yoshioka  
  
Murata Manufacturing Co., Ltd.  
Module Business Unit  
IoT Group  
Fumi Kitao  
  
Murata Manufacturing Co., Ltd.  
Production Engineering Unit  
Quality Assurance Group  
Yuko Furube

Number of countries in which a workshop on the Murata Philosophy has been held:

16

Permeate the Murata Philosophy globally to bring together awareness and action

Philosophy sharing at overseas business sites

Murata Finland Improving, in the spirit of the Murata Philosophy

Following the acquisition of VTI Technologies Oy, the Finnish MEMS technology company, now renamed Murata Electronics Oy, a special program was started to share the Murata Philosophy with all employees.

The purpose of the Philosophy Sharing program was to introduce the Murata Philosophy to all employees, and to help them understand how they can contribute to customer satisfaction and the overall success of Murata. Several workshops were held, with presentations of Murata's history, values and philosophy, followed by discussions and group workshops with the participation of all employees, from management to shop-floor workers. Feedback from employees was positive and encouraging, and also very revealing. We realized we have a lot to do. It was recognized that applying the Murata Philosophy in our daily work and decision-making will truly help us to improve.

These workshops were complemented by an eLearning module, enabling especially new employees to further self-study the meaning of the Murata Philosophy.

Since then, we have advanced from understanding to believing, and finally to applying our Philosophy. Also, the workshops have been implemented with great success.

Case 1)  
Enhancing manufacturing skills

In 2016, a group of MEMS manufacturing workers from Murata Finland visited the Kanazawa factory. The purpose was to learn how the Murata Philosophy is applied to enhance manufacturing and to utilize those learnings to improve our operations in Finland. "We were truly impressed by our observations," commented the participants, "It is obvious that at Murata, manufacturing comes first; it is a real strength, and all employees on site continuously innovate better ways of working, in the spirit

of Murata Philosophy." As a result, numerous improvement proposals were brought back to Finland to further enhance the MEMS manufacturing operations, and several major improvement programs have been implemented with great success.



Murata Electronics Oy workers on visit to the Kanazawa factory

Case 2)  
Scientific approach to improve quality

A scientific approach, which is one key principle of the Murata Philosophy, has been fully implemented at Murata Finland to improve quality. With the help of Murata's extraordinary analysis capabilities, and strong quality mindset embedded in the Philosophy, we succeeded in identifying root causes behind some major quality issues we had had in the past, to take corrective actions and achieve a huge improvement in our product quality. We apply our philosophy across activities called "Know your process" and "Cross-functional team work," enabling us to efficiently utilize the best know-how in-house.

Our journey as a trustworthy member of Murata continues, and we will continue to contribute to the advancement of culture by providing unique MEMS components in the spirit of the Murata Philosophy.



CSR Procurement

A focus on the environment, human rights, and other CSR issues in collaboration with suppliers

Murata aims to build mutual trust with our suppliers and achieve mutual prosperity by promoting socially responsible procurement. This effort aligns well with this section of the Murata philosophy: “We contribute to the advancement of society ... together with all our stakeholders, thankful for the increase in prosperity.”

Companies today are getting called upon to take socially responsible action from stakeholders in various spheres. Murata is no exception. We conduct a variety of CSR-related activities, and through our supply chain urge suppliers to do the same, with the ultimate goal of achieving sustainability in society. In addition to established green procurement efforts to protect the environment, recently we have implemented socially responsible procurement that extends to ensuring that our suppliers protect human rights (preventing discrimination, etc.) and establish occupational health and safety measures. We are also getting called upon to

ensure that our suppliers themselves proactively pursue responsible procurement.

We confirm how our suppliers are carrying out responsible procurement by having them fill out a risk assessment questionnaire based on the Electronic Industry Citizenship Coalition® (EICC®) Code of Conduct. In the future, we are planning to take the results of the questionnaire, perform an audit to confirm the details with each supplier, and if any problem is found, to work with the supplier to improve the situation. In addition, Murata has positioned the issue of conflict minerals/conflict-free sourcing, which has come under great scrutiny recently, as part of our CSR initiatives, which we plan to address in collaboration with our suppliers.

We will steadily and earnestly implement these initiatives for society's benefit, and by so doing deliver Murata products to customers together with greater safety and peace of mind.

How CSR Procurement Works

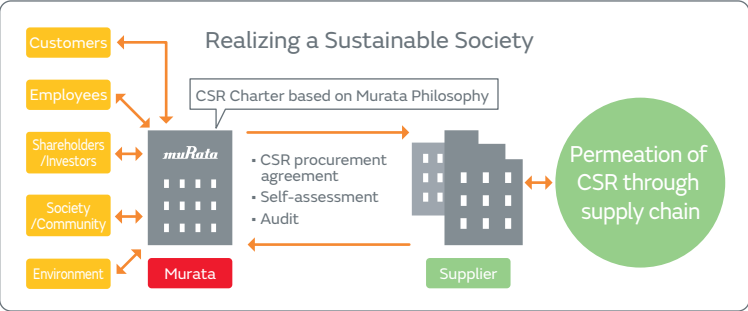


Photo (from right to left):  
Murata Manufacturing Co., Ltd.  
Production Engineering Unit  
SCM Design & Operation Group  
Yukihisa Nakano  
Erika Hirata  
Yusuke Fukui

Working with suppliers to realize a sustainable society



Number of business sites in the Murata Group engaged in woodland preservation:  
8

Developing products, growing forests, and nurturing people



Photo (left to right):  
Murata Manufacturing Company, Ltd.  
Environmental & Safety Management Dept.  
Shigehiro Sakata  
Environmental & Safety Management Dept.  
Environmental & Safety Promotion Sec.  
Kayo Nakata

Murata's woodland preservation activities

Murata receives the Forestry Agency Minister's Award for ongoing activities

Our head office has been engaged in Murata Forest woodland preservation activities since fiscal 2007. About once a month, employees and their families participate as volunteers, actively cooperating with local residents near the forest in Kozaki-ku, Kameoka, Kyoto prefecture to help thin the forest. Last autumn, at the 40th Annual Zenkoku Ikujusai (nationwide tree-raising event) held in Kyoto, the company was recognized by Kyoto prefecture with the Forestry Agency Minister's Award for

approximately 10 years of ongoing activities. We plan to continue actively pursuing these activities to uphold the honor of being a recipient of the award.

\* Murata Forest was the first forest in the woodland preservation activities carried out in Japan as part of the Model Forest Movement proposed by Canada at the Earth Summit held in 1992 as a practical movement to build a sustainable global environment.

Class lessons for children by Murata employees

Raising the curiosity and aspirations of children in China

Since 2006, Murata has been sending employees to elementary schools, junior high schools and other learning institutions in Japan and other countries to show children what kind of work engineers do and how interesting the job is of supporting *monozukuri* (the art of manufacturing) at a company like Murata.

At Wuxi Murata Electronics in China, efforts were begun in December 2016 to give lessons to kids at a nearby elementary school.

The children were given a demonstration of MURATA BOY, a bicycle-riding robot, and MURATA GIRL, a unicycle-riding robot. They were shown the mechanisms that make the robots self-balancing and shown scenes of the robots while still under development. The objective was to stimulate chil-

dren's intellectual curiosity in science and technology and to show how important the work of an engineer is, and the importance of never giving up, even after failing.

The company also donated books to be of assistance in the children's school careers. Murata aims to be the kind of company that enables children to have high hopes and dreams.





# CSR activities: Targets and results

Murata commits itself to continual improvement in priority theme areas through the implementation of a broad range of measures.

Results for fiscal 2016 environmental targets and social targets; medium-term targets for fiscal 2016 to fiscal 2018, and targets for fiscal 2017

## ■ Environmental Targets

○: Achieved    △: Nearly achieved    ×: Not achieved

Item	Targets for FY2016	Results for FY2016	Achievement	FY2016 to FY2018 medium-term targets	Targets for FY2017
1. Environmental considerations in our products	Formulate and do trial computations for a calculation rule (draft) on the amount of contribution to CO <sub>2</sub> emission reduction	A calculation rule (draft) on the amount of contribution to CO <sub>2</sub> emission reduction was formulated and trial computations conducted, which will lead to verification of how much products help to reduce emissions	○	Establish evaluation methods for the amount of contribution to CO <sub>2</sub> emission reduction at the usage stage of our products	Verification of the calculation rule (draft) on the amount of contribution to CO <sub>2</sub> emission reduction
2. Global warming countermeasures	Set and implement FY2016 plan for medium-term targets	A plan for CO <sub>2</sub> emission reduction to achieve medium-term targets was created and executed, achieving a 3.5% CO <sub>2</sub> emission reduction year over year	○	Reduce total greenhouse gas emissions in FY2018 to 1.2 million ton CO <sub>2</sub> or less	1% or more CO <sub>2</sub> emission reduction year over year
3. Saving resources and recycling —Waste	Improve waste emissions per unit of real production in FY2016 by 1% (compared to FY2011 to FY2015 average)	Waste emissions per unit of real production in FY2016 worsened by 6.4% (compared to FY2011 to FY2015 average); measures were taken, including the recovery of valuable materials from waste, but with expanding business, production volume increased rapidly in products with high waste emissions per unit	×	Improve average waste emissions per unit of real production in FY2016 to FY2018 by 3% (compared to FY2011 to FY2015 average)	Improve waste emissions per unit of real production in FY2017 by 1% (compared to FY2011 to FY2015 average)
4. Saving resources and recycling —Water	•Improve average water usage per unit of real production in FY2016 by 1% (compared to FY2011 to FY2015 average) •Investigate water risk assessment methods •Strengthen rainwater discharge management toward reducing the risk of pollution	•Average water usage per unit of real production in FY2016 improved by 3.8% (compared to FY2011 to FY2015 average) •Water risk assessment methods were investigated and two global-standard methods were selected for use; efforts will proceed based on assessment results that are in line with the water risks in each country or region •Measures started being implemented to ascertain the risk of pollution related to rainwater discharge at new factories	○	•Improve average water usage per unit of real production in FY2016 to FY2018 by 3% (compared to FY2011 to FY2015 average) •Develop measures to establish assessment methods for and reduce water risks	•Improve average water usage per unit of real production in FY2017 by 1% (compared to FY2011 to FY2015 average) •Strengthen rainwater discharge management toward reducing the risk of pollution

## ■ Social Targets

○: Achieved    △: Nearly achieved    ×: Not achieved

Item	Targets for FY2016	Results for FY2016	Achievement	FY2016 to FY2018 medium-term targets	Targets for FY2017
1. Internal control systems	Continue to achieve "zero" serious problems, in compliance with laws and regulations, the Articles of Incorporation, internal regulations, etc., and by promoting the development of internal control	Zero serious problems achieved through compliance with laws and regulations, the Articles of Incorporation, internal regulations, etc., and by promoting the development of internal control	○	Realize sustainable growth by improving the transparency of management and the effectiveness of auditing, in an aim at increasing Murata's corporate value	Continue to achieve "zero" serious problems, in compliance with laws and regulations, the Articles of Incorporation, internal regulations, etc., and by promoting the development of internal control
	Conduct efficient audits in response to globalization, and promote the expansion of internal control for new bases and M&A companies	Internal control development support and follow-up audits were conducted and the development of internal control promoted at four bases among the new domestic and international bases and M&A companies	○		Conduct efficient audits in response to globalization, and promote the expansion of internal control for new bases and M&A companies
2. Promoting compliance	•Permeate compliance awareness •Continue to regularly communicate information on compliance promotion activities (monthly) •Conduct compliance verification tests and surveys	•An email magazine on compliance awareness was published monthly (12 issues/year) . •October was made Compliance Month at Murata and affiliated companies, and compliance verification tests and surveys were implemented.	○	•Permeate compliance awareness •Disseminate information over the intranet, such as on the latest trends in regard to compliance and various laws and regulations, and continue to conduct comprehension tests and surveys, in an aim at raising employee awareness	•Permeate compliance awareness •Continue to regularly communicate information on compliance promotion activities (monthly) •Conduct compliance verification tests and surveys
	•Implement compliance education •Hold group discussions using case methods, etc.	•October was made Compliance Month at Murata and at the workplaces of domestic affiliates, and group discussions were held using difficult-to-assess compliance cases, including ethical dilemmas	○	•Implement compliance education •Plan and continue implementing education and enlightenment activities that aim at broadly raising the general level of knowledge and awareness in regard to compliance	•Implement compliance education •Hold group discussions using timely case methods, etc.
	•Strengthen the foundation of global compliance •Continue to flexibly rebuild the ongoing system for implementing the "Basic Policy for Prevention of Cartels and Bribery" in accordance with the situation of each country and region •Maintain and implement a PDCA framework related to promoting compliance	•At Murata and domestic affiliates, control processes for preventing cartels were introduced, eLearning on cartels and bribery was conducted, and the ongoing system for implementing the "Basic Policy for Prevention of Cartels and Bribery" was rebuilt in accordance with the situation of each country and region	△	•Strengthen the foundation of global compliance •Continue to supervise and guide the operation of ongoing system for implementing the "Basic Policy for Prevention of Cartels and Bribery" in overseas subsidiaries through cooperation with overseas headquarters •Develop the PDCA cycle for more effective and highly transparent compliance promotion activities by including a process to verify and approve the annual plan and the results of global compliance education, monitoring, etc., which is reported by the Secretariat at the Compliance Promotion Committee that is held twice a year	•Strengthen the foundation of global compliance •Continue to rebuild and appropriately operate the ongoing system for implementing the "Basic Policy for Prevention of Cartels and Bribery" in accordance with the situation of each country and region •Maintain and implement a PDCA framework related to promoting compliance
3. Strengthening risk management	Continually carry out from the investigation of risks on a global level to the implementation and evaluation of related measures, identify the important risks that Murata faces, focus on verifying whether or not those measures are effective, and conduct reviews so that those measures are strengthened further	Company-wide risks continued to be investigated through to the implementation and evaluation of related measures; the measures to strengthen were identified, and measures for the current fiscal year and the future were systematically implemented	○	Ensure that the PDCA for risk management at the corporate level functions effectively, and permeate the concept of risk management as a part of day-to-day operations	Continually study the risks that obstruct Murata's business continuity and plans for preventive measures and loss mitigation measures in the event that risks materialize at the corporate level; strengthen efforts such as the conducting of drills as part of those countermeasures
4. Society and community	•Enhance the content of science and environmental education for children, and expand the opportunities for them to gain an interest in science and the environment •Continue to participate in forest preservation activities and events in the neighborhood community, and foster a corporate culture in which employees can proactively participate in social and local contribution activities	•Science and environmental education for children is being carried out on an ongoing basis domestically, and the number of instances is steadily being increased overseas •Regarding participation in woodland preservation activities and events in the neighborhood community, activities have expanded overseas and activities on a global level have become established	○	Realize the philosophy of our Founder, "Wanting the presence of Murata to be the pride of that area ... for Murata to be a company that is a source of joy" at a global level	Science and environmental education for children that has been carried out for a long time and participation in woodland preservation activities and events in the neighborhood community have been expanded in content, and activities expanded on a global level

## ■ Social Targets

○: Achieved    △: Nearly achieved    ×: Not achieved

Item	Targets for FY2016	Results for FY2016	Achievement	FY2016 to FY2018 medium-term targets	Targets for FY2017
5. Suppliers	Redefine the CSR compliance criteria for suppliers that reflect the latest CSR issues, and continue promoting efforts to manage and improve the status of that compliance	A check sheet has been created to confirm status of suppliers' compliance, and the answers were collected with the cooperation of targeted suppliers	○	Complete confirmation of the status of CSR compliance by major suppliers	Confirmation of the status of compliance with designated supplier CSR procurement criteria is proceeding, and efforts to manage and improve the status of that compliance are proceeding in cooperation with suppliers
	Continue promoting the expansion and timely updating of the part and material production site database that can be referenced in times of disaster or accidents	The updating and expansion of the production site database is being continuously promoted and a system was rolled out for querying targeted suppliers in times of disaster or accidents	○		The expansion and timely updating of the part and material production site database that can be referenced in times of disaster or accidents is continuing to be carried out along with effective utilization efforts such as systematizing the confirmation of damages in times of disaster or accidents
6. Employees	1. Start promoting "diversity & inclusion" at Murata •Establish a committee structure for considering and promoting awareness activities (disseminating messages from Directors, etc., holding in-house lectures, etc.) and themes like "diversity and inclusion" 2. Be actively involved so that career formation and growth is possible •Promote a reform in consciousness toward autonomous career design and ways of working, and implement awareness activities for management and career training 3. Be involved toward promoting the active participation of women •Introduce and expand the system for returning to work for those employees who experience difficulty in continuing in their job due to childcare, etc. 4. Support active roles for senior-level employees •Hold 13 career management training sessions and conduct career interviews	1. Promotion of "Diversity & Inclusion" •Awareness-raising activities implemented such as disseminating messages from President •Lectures by outside lecturers held •Committee (M-DIP) established in July 2016 by soliciting members; started studying the ideal form of development of Murata and spreading that ideal among divisions 2. Efforts taken to promote career formation and personal growth, along with career training (11 times) and career seminars (14 times) for general employees •Career seminars held (15 times) for managerial employees •Overseas spouse accompaniment and leave system introduced 3. Measures promoting the active participation of women •Target conditions expanded for the mid-career return of employees who needed to quit •Relaxation of system of working on a reduced schedule for childcare to encourage the early return from parental leave 4. Supporting active roles for senior-level employees •Career management training held Managerial level: 5 times General employees: 8 times	○	•Introduce measures toward the awareness of career autonomy for each job •Implement efforts toward realizing diversity in ways of working •Implement efforts toward promoting the participation of men in childcare •Aim at the proportion of women in management trainee positions for new graduates being 10% with technical jobs and 40% with clerical jobs, and implement measures to that end	1. Continue with activities to spread "Diversity & Inclusion" at Murata •Hold awareness activities (disseminating messages from President, holding in-house lectures, etc.) •Continue with committee to promote Diversity & Inclusion and carry out activities to spread that ideal 2. Be actively involved so that career formation and growth is possible •Promote a reform in consciousness toward autonomous career design and ways of working; implement awareness activities for management and career training, promote early awareness of career autonomy, and continue to conduct career training 3. Measures to promote the active participation of women •Review the opportunities for taking a screening examination for promotion while on parental leave, etc., and look into reviewing evaluations 4. Support active roles for senior-level employees •Hold 9 career management training sessions and conduct career interviews
	1. Construction the mechanism for creating a "Management System on Human Rights and Labor" •Carry out awareness education for all employees in FY2016 2. Continue awareness and education to prevent harassment •Hold 4 training sessions during FY2016 for those managers who have not undergone training on sexual and power harassment •Carry out awareness education for all employees in the first half of FY2016 to prevent harassment 3. Continue human rights education: Hold once a year as social class education	•Management System on Human Rights and Labor promoted company-wide and meetings held by Human Rights and Labor Committee •Training on harassment prevention conducted •Human rights education conducted in training by level (new employees) •Awareness education on worker rights provided	○	•Firmly establish a "Management System on Human Rights and Labor", and effectively implement the PDCA cycle in setting goals, extracting and improving problem through risk assessment, measuring and evaluating performance in committees, conducting management reviews, etc. •Introduce company-wide education once a year from FY2016 in regard to harassment, human rights, and labor, in order to increase employee sensitivity to those issues	•Firmly establish a Management System on Human Rights and Labor •Workshops held for all employees on harassment and worker rights •Continue human rights education (by organizational level) •Conduct human rights and worker rights audits of cooperating companies, such as staff recruitment agencies and contractors
	•Enhance and firmly establish a support system to help employees strike a balance between work and family life ("work-life balance"): Hold 1 visitation day for children of employees	•"Murata Kids: Work Investigation Corps", a visitation day for children of employees, was held. •Reduced work schedule introduced for caregivers	○	•Conduct investigation into and analysis of the conventional "work-life balance" support system, and consider a review of the system toward effective utilization once problems are identified •Aim further at fostering awareness of "work-life balance" support among employees and at the workplace •Continue to support the wholesome development of children, who will lead the next generation	•Enhance and firmly establish a support system to help employees strike a balance between work and family life ("work-life balance"): Hold 1 visitation day for children of employees •Continue to promote awareness of issues and develop effective measures
	•Promote permeation of and measures for sharing the "Murata Philosophy" •Hold workshops on sharing the Philosophy: 20 times •Continue employing foreign workers: Hire 5 new university graduate employees •Promote increasing the number of foreign employees on loan: 30 in FY2016 •Provide education on globalization (strengthen ability in English and Chinese): Offer an English and a Chinese improvement course	1. Promote permeation of and measures for sharing the Murata Philosophy •Workshops held for sharing the Philosophy after M&A •Lectures on the Philosophy held for people joining the company not directly from university •Seminar to study Philosophy held upon company anniversary 2. Workshops on sharing the Philosophy held: 30 times 3. Increasing the number of foreign employees on loan promoted: 31 in FY2016 4. Education on globalization provided (strengthening ability in English and Chinese) •English improvement course held from May to Nov., one set at each level (3 sets total) •Chinese improvement course held from May to Nov., one set	○	•Ensure that the score on items related to "sharing the Philosophy" in an FY2017 employee survey is better than that of FY2015 •Continue to hold Philosophy workshops •Continue promoting the hiring of foreign employees and the acceptance of foreign employees on loan, and work toward further diversity in management •Aim at further strengthening the language skills of employees (English, Chinese), and develop personnel who can play an active role globally	•Promote permeation of and measures for sharing the Murata Philosophy •Hold Philosophy workshops at every site •Incorporate Philosophy education into domestic training program by organizational level •Continue employing foreign workers: Hire 5 new university graduate employees •Promote increasing the number of foreign employees on loan: 50 in FY2017 •Provide education on globalization (strengthen ability in English and Chinese): Offer an English and a Chinese improvement course
	•"Zero" incidence of serious work-related accidents •Introduce a method of patrol that can identify unsafe behavior •Promote the introduction of hands-on education	•Zero incidence of serious work-related accidents •Safety patrol introduced for actively engaging workers in conversation to confirm their awareness of unsafe behavior •Hands-on safety education introduced	○	•"Zero" incidence of serious work-related accidents	•"Zero" incidence of serious work-related accidents



# Taking a close look at CSR at Murata

CSR at Murata emphasizes being socially responsible in the company’s business activities. It embodies a strong determination to maintain stable employment and address social issues. This report, however, contains many abstract explanations. Internationally, solutions are needed for specific problems, such as the Sustainable Development Goals (SDGs) adopted by the United Nations. When we see the ways in which the socially responsible execution of Murata’s business activities are connected to specific social issues, and how those topics are placed at the center of CSR activities, it becomes clear how Murata is working hard to be a world leader in corporate social responsibility.

“Diversity and inclusion” is another topic of this report. Promoting greater diversity is an important thing to do at every level of society, and is something that Murata is actively pursuing; it is an area in which I would like to see Murata make good progress. A concrete action plan is necessary for proper implementation. Gender, age, and nationality are not the only focuses for diversity. So it is good to see that Murata aims to implement measures that diversify working styles themselves. This will in turn strengthen the company’s resilience and make life better for its employees. Yet it is important to establish a number of indicators to provide specific objectives to meet.

Murata can also be commended for the measures it has taken in its supply chain. It has become clear in the last several years that CSR and environmental measures cannot be managed properly without implementing them throughout the entire supply chain. Year by year there has been increasing pressure from buyers in this regard. Murata’s main relationships are with suppliers close to the raw materials, so it has the ability to do much more for the social good in terms of careful supply chain coordination than a manufacturer that only works from assembly to the finished product.

In the world of CSR, there is a growing trend toward producing “integrated reports”. An integrated report covers more than financial capital. It includes the value that is produced from other forms of capital—manufactured, intellectual, human, social and relationship, and natural. I believe this report style is a good match with Murata’s CSR spirit, and look forward to seeing such reports issued in the future. At such time, an important focus will be the indicators selected to measure the creation of value to society. In financial matters there are Key Performance Indicators (KPIs) , so it will be critical to establish non-financial KPIs, to manage objectives, and to communicate Murata’s progress as the company moves forward.



Graduate School of Business Administration, Kobe University

Professor Katsuhiko Kokubu

## Profile

# Murata sites worldwide

## Sites in Japan

Murata Manufacturing/ Head Office•Branch•Plant and Division•Sales Office	
Head Office	Murata Manufacturing Co., Ltd.
Branch	Tokyo Branch
Plants and Division	Yokohama Technical Center / Yasu Division / Yokaichi Plant / Nagaoka Plant
Sales Office	Sendai / Mito / Saitama / Tokyo / Tachikawa / Hamamatsu / Nagoya / Azumino / Kyoto / Kobe / Okayama / Fukuoka

Domestic subsidiaries	
Fukui Murata Manufacturing Co., Ltd.	Wakura Murata Manufacturing Co., Ltd.
Izumo Murata Manufacturing Co., Ltd.	Tome Murata Manufacturing Co., Ltd.
Toyama Murata Manufacturing Co., Ltd.	Ogaki Murata Manufacturing Co., Ltd.
Komatsu Murata Manufacturing Co., Ltd.	Asuwa Murata Manufacturing Co., Ltd.
Kanazawa Murata Manufacturing Co., Ltd.	Anamizu Murata Manufacturing Co., Ltd.
Okayama Murata Manufacturing Co., Ltd.	Tokyo Denpa Co., Ltd.
Kanazu Murata Manufacturing Co., Ltd.	TOKO, Inc.
Sabae Murata Manufacturing Co., Ltd.	Ise Murata Manufacturing Co., Ltd.
Iwami Murata Manufacturing Co., Ltd.	Murata Shizuki FC Solutions Co., Ltd.
Hakui Murata Manufacturing Co., Ltd.	Murata Land & Building Co., Ltd.
Himi Murata Manufacturing Co., Ltd.	Murata Eiko Co., Ltd.
Azumi Murata Manufacturing Co., Ltd.	Murata Active Partner Co., Ltd.
Komoro Murata Manufacturing Co., Ltd.	Murata Electronics Co., Ltd.
	Murata Software Co., Ltd.
	Murata BUNSEKI Partner Co., Ltd.
	Others

## Sites outside of Japan

North & South America	
U.S.A.	Murata Electronics North America, Inc. Murata Power Solutions, Inc. Peregrine Semiconductor Corp.
Canada	Murata Power Solutions (Toronto) ULC
Mexico	Murata Electronics Trading Mexico, S.A. de C.V.
Brazil	Murata World Comercial Ltda.
	Others

Europe	
Netherlands	Murata Electronics Europe B.V.
Germany	Murata Elektronik GmbH
U.K.	Murata Power Solutions (Milton Keynes) Limited Murata Power Solutions (Celab) Limited
France	Murata Electronique SAS Murata Integrated Passive Solutions S.A.
Finland	Murata Electronics Oy
	Others

We also have sales offices in the United Kingdom, Italy, Spain, Hungary and Switzerland.

Asia	
China	Murata (China) Investment Co., Ltd. Wuxi Murata Electronics Co., Ltd. Shenzhen Murata Technology Co., Ltd. Murata Electronics Trading (Tianjin) Co., Ltd. Murata Electronics Trading (Shanghai) Co., Ltd. Murata Electronics Trading (Shenzhen) Co., Ltd. SyChip Electronic Technology (Shanghai) Ltd. Murata Power Solutions (Shanghai) Co., Ltd. Foshan Murata Minmetals Materials Co., Ltd. Dongguan Murata Electronics Co., Ltd.
Hong Kong	Murata Company Limited Murata Power Solutions (Hong Kong) Limited
Taiwan	Taiwan Murata Electronics Co., Ltd.
Korea	Korea Murata Electronics Company, Limited
Singapore	Murata Electronics Singapore (Pte.) Ltd.
Thailand	Murata Electronics (Thailand) , Ltd. Thai Murata Electronics Trading, Ltd.
Malaysia	Murata Electronics (Malaysia) Sdn. Bhd.
Philippines	Murata Electronics Philippines Inc. Philippine Manufacturing Co. of Murata, Inc.
India	Murata Electronics (India) Private Limited
Vietnam	Murata Electronics (Vietnam) Co., Ltd.
	Others





ExecutivesAs of July 1, 2017

Board Members

Chairman of the Board and President	Tsuneo Murata*
Vice Chairman of the Board	Yoshitaka Fujita
Board Member	Toru Inoue*
	Norio Nakajima*
	Hiroshi Iwatsubo
	Yoshito Takemura
	Satoshi Ishino
	Takashi Shigematsu (Outside Director)
Board Member Audit and Supervisory Committee Member	Junichi Tanaka
	Hiroaki Yoshihara (Outside Director)
	Masakazu Toyoda (Outside Director)
	Hiroshi Ueno (Outside Director)
* indicates Representative Director	

Vice Presidents

Senior Executive Vice President	Toru Inoue
	Norio Nakajima
Executive Vice President	Satoshi Sonoda
	Hiroshi Iwatsubo
	Yoshito Takemura
	Satoshi Ishino
	Norio Sakai
Senior Vice President	Masahiro Ishitani
	Kenichi Mizuno
	Hideki Maruyama
	Ryuji Miyamoto
Vice President	Takehiro Konoike
	Yutaka Tada
	Yoshikazu Namasuya
	Kiyoshi Iwai
	Toshikazu Sasaki
	Etsuo Hayakawa
	Nagato Omori
	Ken Tonegawa
	Shinji Nomura
	Takaharu Sakai
	Noriyuki Kubodera

Stock informationAs of March 31, 2017

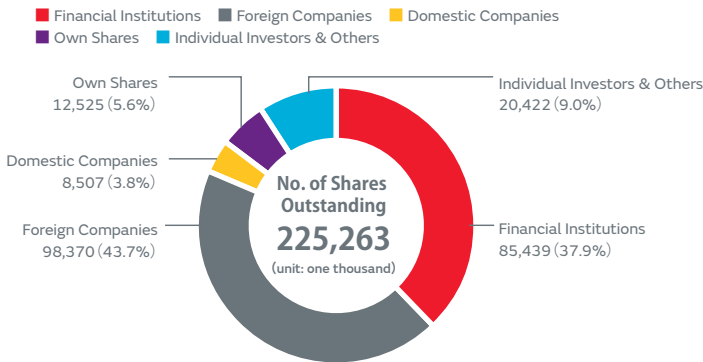
Number of shares outstanding at the end of current term

225,263 thousands of shares

Number of shareholders at the end of current term

56,576

Number of shares outstanding (unit: one thousand)



Stock exchangea listing

[Domestic]	Tokyo Stock Exchange First Section
[Overseas]	Singapore Exchange

Major shareholdersAs of March 31, 2017

Name	Number of shares (unit: one thousand)	Ownership (%)
JP Morgan Chase Bank 380055	18,541	8.7
Japan Trustee Services Bank, Ltd. (Trust Account)	11,389	5.4
The Master Trust Bank of Japan, Ltd. (Trust Account)	7,699	3.6
Nippon Life Insurance Company	7,361	3.5
State Street Bank and Trust Company	6,977	3.3
The Bank of Kyoto, Ltd.	5,260	2.5
Meiji Yasuda Life Insurance Company	5,240	2.5
JPMC Oppenheimer JASDEC Lending Account	4,836	2.3
Japan Trustee Services Bank, Ltd. (Trust Account 5)	3,854	1.8
The Shiga Bank, Ltd.	3,551	1.7

(Note)  
The company holds 12,525 thousand shares of its own stock. As these shares do not confer voting rights, they are excluded from the above table.

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