creation story

# Murata's core competencies

## We will increase our collective strength by enhancing and connecting respective strengths together.

Since most of our sales are generated from products with high shares in global markets, we have opportunities to communicate with many customers in a wide range of industries, which allows us to stay ahead of and anticipate customer needs. Murata's strengths are in our global sales network, technological development capabilities, monozukuri (manufacturing) capabilities, and supply capabilities. We will increase our collective strength by combining these elements.

# Core competencies Innovation driven by CS/ES

Murata's mission is to "contribute to the advancement of society," and we believe that Murata exists for this purpose. In order to realize this mission through the efforts of all employees, the values of "CS and ES" are regarded as critical aspects in our management. At Murata, CS means "to create and provide value

that customers appreciate," and ES means "each and every employee feels rewarded and continues to grow through his or her work." We practice these values based on our desire to be a company that can realize them in our daily business.



Initiatives involving corporate culture after establishing the Murata Philosophy



CI Committee was established

the slogan "Innovator in Electronics" in 1994.

Conducted further in-depth analysis and investigation.

established Murata's MI (Mind Identity), and introduced

Corporate Culture Development Committee was established Recommendation to draft Murata's ideal corporate culture for the 21st century, clarify the values and philosophy that all employees should share, and propose measures for their realization.

Corporate surveys in 2005 highlighted the issue that there were significant gaps between the understanding held by personnel in management and supervisory positions and of those held by the employees, and that employee satisfaction was generally quite low. In order to bridge this gap, measures to promote awareness and behavioral reform for executives and supervisory personnel were implemented.

2005

The Corporate culture reform activities were initiated

Recognition of the necessity of understanding the current cultural climate and seeking developments congruent

with environmental changes in order to take on the challenge of advancing to the next stage of growth amid

ongoing stagnation in sales and income growth and the collapse of the conventional profit structure.



## Actions for understanding CS (Customer Satisfaction) and ES (Employee Satisfaction)

We started to hold executive training camps to provide them with an opportunity to study and discuss CS and ES. Even now, all executives assemble and hold discussions once every fiscal guarter. In this Mid-term Business Plan. we solidified the idea that Murata's greatest value is how our CS and ES drive innovation.



New technologies such as IoT, automated driving,

and AI in the 5G era will change not only individual

electronic devices, but also transportation systems,

cities, and society as a whole. We have strengthened

our efforts to look to the future and provide

optimal solutions to our customers by boosting

cooperation among sales, marketing, development,

and production in order to continue to provide value

to our customers in this vastly changing business

As one of those activities, we have formulated four

roadmaps. The Sales & Marketing Unit evaluated

general trends in the market and produced the Market Roadmap, and the sales and marketing

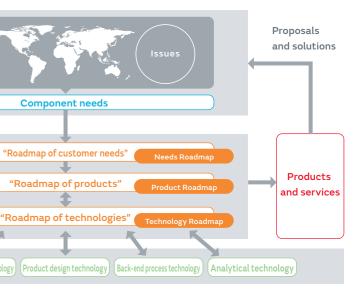
departments in each area and the sales promotion

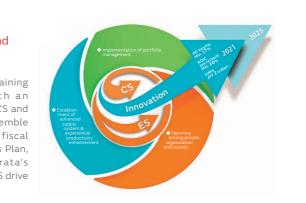
environment.

A network is in place to provide Murata's services and products anywhere around the world, including in Japan, Asia, the Americas, and Europe. Using "marketing by everyone" as our motto, we leverage our global network to anticipate customer needs ahead of any other company, and each employee maximizes value offered to customers.

#### Formulation of roadmaps leveraging marketing capabilities

department of the business divisions integrated this Market Roadmap with customer needs over the medium to long term, whereby composing the Needs Roadmap. These are connected to the Product Roadmap and the Technology Roadmap by the development department. Roadmaps are revised every year and reconnected to R&D and product development. Based on the roadmaps, product technologies that offer the highest level of technical services to customers play the role of finalizing the services as a product as they respond to customers on the frontline during the new product development phase and provide feedback on detailed needs to the development department.





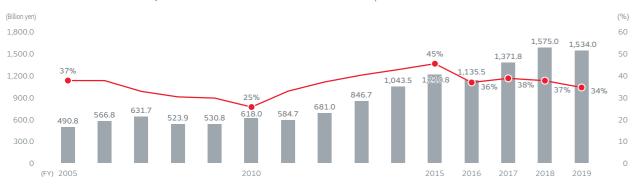
# Murata's core competencies

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Continuous R&D investment enabling product development and accumulation of intellectual property

Murata has built an integrated system of manufacturing, from raw materials to finished products, and we have independently developed technologies in the application of materials and other such core areas of our operation, obtaining a level of expertise that many other companies have not been able to reach. Through continuous investment in innovation, we have sought to differentiate our products, and this has become one of major factors in Murata's strengths.

● Trends in net sales and new product sales ■ Net sales •● Ratio of new products to net sales



● R&D expenses and ratio of R&D expenses to net sales ■ R&D expenses •●• Ratio of R&D expenses to net sales



Fiscal 2019 Fiscal 2017 Fiscal 2018 R&D exp 94.1 billio 101.6 billior 102.5 billion ye 6.9% 6.5% 6.7%

Accumulation of intellectual property

Murata sees the strengthening of its intellectual property (IP) as a critical part of our product development efforts and overall business plan, and we are proceeding with IP strategies and activities accordingly. Each business division and product development department has a representative and a patent leader, both of whom promote IP activities in their respective areas in cooperation and alignment with the corporate IP Department; those representatives and patent leaders play a central role in managing and encouraging IP activities. We also cultivate a company-wide sense of awareness of the value of our IP through various events such as education for all levels of employees, workshops, and patent forums.



Strong monozukuri capabilities enable timely 3 supply

Murata's technologies are directly aligned with our strategic markets and customers. Murata internally develops materials, processes, products and production technology. By vertically integrating our manufacturing operation and conducting global and decentralized production, we have optimized the value we can deliver to customers in a swift and timely manner, while leveraging the largest production capacity in the industry.

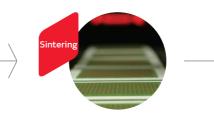
Murata's monozukuri (manufacturir



Murata has established technologies to precisely control ceramic materials and electrode materials that critically determine the properties of electronic components.



From ceramic sheets that are 1  $\mu m$  or less in thickness to complexly shaped filters created by injection forming, we pursue an ideal shape aligned with each function.



changes within a furnace.

When sintered, ceramic crystal structures

shift to achieve certain properties. Sintering

is a technique to control these invisible



Once materials have gained the desired electric properties from the previous processes up to sintering, ceramics are formed into electronic components through various additional processing

## Trends in the number of patents owned by Murata

The number of patents owned by Murata is increasing year by year. This is due to an increasing number of applications resulting from expansion in various technological fields as a result of mergers and acquisitions (M&As), and the inclusion of the number of patents that have been transferred. The reason for an increase in the number of foreign applications is that our ratio of sales outside of Japan has increased, and we have been proactive in filing new applications. When moving forward with international applications, we utilize a Patent Cooperation Treaty (PCT) to ascertain appropriate countries where we should file with consideration for optimizing cost effectiveness.



Ranking in PCT applications filed



Once completed, products are delivered to customers only after rigorous testing proves that they are worthy of the Murata label.