

## A connector itself is sustainable

# Connector is Sustainable

Hirose Electric formed the Sustainability Promotion Project in fiscal 2021, and now the Hirose Group is working in coordination with the Board of Directors to realize sustainability, including the Sustainable Development Goals (SDGs). Launched under the slogan "Connector Is Sustainable," the project is promoting the creation of a foundation for generating new initiatives while promoting internal awareness of how connectors contribute to the realization of a sustainable society.

### What kind of activities are being carried out under the Sustainability Promotion Project?

**Y.M.:** I am leading the Sustainability Promotion Project, which is working not only to respond to the demands of society, but also to first create the foundation for promoting a unified approach to sustainability by the Hirose Group. There is a tendency to focus on the "connecting" function of connectors, but their ability to divide things simply is also an important function. The characteristic of connectors for simply connecting and disconnecting enables easier repair of electric devices and increased convenience for customers and users, while contributing to a sustainable society in various aspects, such as social development, and reduction of waste and resource use. Based on this concept that "Connector Is Sustainable," we encourage employees to recognize that their work involving those connectors is something to be proud of.

**T.W.:** So routine activities are leading to sustainability. The function of connectors is taken for granted in-house, but there are many people who do not realize that this function is contributing to society. Therefore, it is necessary to state it again. Having an awareness of characteristics of connectors and their relationship to sustainability will be important for promoting activities going forward. As part of the project activities, we have started to incorporate this way of thinking into our product planning. By having and promoting an awareness during product planning that the function of connectors itself contributes to a sustainable society, we will incorporate the concept of "sustainable" into Hirose's business activities.

**Y.M.:** I think that incorporating sustainability into product planning is the work of confirming that Connector Is Sustainable. Development of electrical equipment is necessary



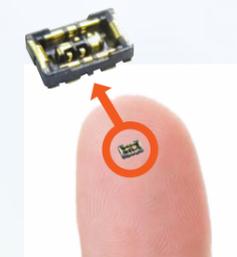
for solving social issues, but it is also essential for components to evolve. Following one of the values in the HIROSE Philosophy, Hirose is constantly working to develop products that lead, pursue the cutting edge, and achieve differentiation. We are striving to add new elements that solve customers' difficulties into our new product concepts. This is a step towards a sustainable society, and we are raising awareness so that we can link our initiatives in the area of connectors to sustainability without difficulty or resistance.

### Could you tell us in detail about the sustainable functions of connectors?

**Y.M.:** Downsizing is an area that is easy to grasp to start with. Downsizing of connectors not only helps to save resources, but also generates new value. For example, we are seeing that wearable devices are becoming hugely popular among people who want to keep healthy and enjoy convenience, and the downsizing of connectors contributes to this. Previously, connectors used in smartphones were the smallest available, but now the connectors used in wearable devices are even smaller.

**T.W.:** It was OK to do without connectors when the wearable market was still small, but for mass production, connectors are necessary to keep up the pace of production as they make assembly operations much easier because you only need to engage the connectors to make a connection. We were certain that wearable devices would definitely come to use connectors, and we have been preparing for this since their early days.

**Y.M.:** It is nearly impossible to make connectors this small. Connectors are assembled by inserting metal pins into plastic parts. When the connectors are small, the plastic part can split. For this reason, we also use a manufacturing method called insert molding where the metal pins are set inside a molding die before pouring in the resin. This itself is an ordinary method, but at Hirose we make miniature board-to-board connectors with a complex spring shape using insert molding. We can do this because we have miniature precision molding dies which are an order of magnitude more accurate than



connectors assembled with ordinary methods. Hirose is a diligent company, and when we aim for downsizing, we pursue the best technologies without compromise. This effort has coincided perfectly with the arrival of wearable devices.

**It is really easy to understand that downsizing of connectors helps to advance electronic devices and makes assembly operations easier.**

**T.W.:** One of the invisible ways that we contribute is in preventing temperature rise in connectors. Recently, demand for rapid charging has led to an increase in use of large electric currents. This causes an increase in resistance at the contact point of the connector, which always causes it to get hot. Controlling temperature increase is key for preventing battery deterioration, which is the most important aspect of smartphone longevity. Our customers have been encouraging us to develop connectors to accomplish this. We are trying to innovate with designs with different shapes and selection of metal materials to see how we can get the board and FPC to release heat even when they are in miniature form.

**Y.M.:** The other factor is robustness. The downside of downsizing is that they can break if the two sides collide due to misalignment during engagement. Therefore, while downsizing them, we are also developing a fully armored connector covered in a metal shield. If a connector breaks, the customer may have to discard all of the components on the board. This is an important consideration, because we want to avoid such waste. By increasing the robustness of the connector, we can reduce the need for discarding or repairing them.

Incidentally, there have recently been calls for the "right to repair." Connectors are important for connecting devices so that laypeople can access them. This is another reason that robustness is absolutely essential.

**No doubt it is difficult in some ways for connector manufacturers to promote sustainability by themselves, but what about this aspect?**

**Y.M.:** That's right. We are also learning from our customers. There is a Dutch manufacturer that sells the Fairphone, the world's most ethical\* and repairable smartphone. At one point, they ran into some difficulties and so they contacted Hirose's sales team. They were trying to create a smartphone using

## Connector *is* Sustainable



I think that we can drive Hirose's further evolution by raising individual awareness through understanding and internal promotion of "Connector Is Sustainable."



To continuously promote sustainability it is important to connect it with business and generate a profit.

parts that complied with Fairtrade\*, but they were unable to locate connectors that used Fairtrade gold. We felt unsure how to respond as this was the first inquiry of that nature that we had received. However, some staff took an interest and began investigating while talking with gold wholesalers and Fairphone. As a result, we were able to propose a solution, albeit of a limited quantity, much to the delight of the customer. We held a connector technology exchange meeting with Fairphone and this grew into a beneficial relationship. I am certain that it was from this experience that sustainability began to be included in our business domains. At the same time, I am all too aware that our own initiatives alone will not be enough in this area. I think that it is truly significant that the SDGs advocate "partnership."

### Was it partnerships with customer companies that led to serious thinking about promoting sustainability?

**Y.M.:** Yes, that was a significant watershed event. When a smartphone with additional functionality in terms of being a repairable smartphone becomes a differentiation point, it will generate profit. As is also advocated by the HIROSE Philosophy, the pursuit of high added value leads to high profits. At first, we started to take an interest from the perspective of whether this partnership would generate business, but in the process we noticed that reparability is sustainability, and that we could achieve both business and sustainability. After all, it's cool to make your main business attractive. By increasing each individual's awareness, making everyone aware that leading, cutting edge, and differentiated connectors will drive sustainability and getting them to understand this, I think that

Hirose can evolve even further. Therefore, I will continue to tell everyone that "Connector Is Sustainable."

### Do you have any other thoughts about sustainability initiatives in collaboration with customers?

**Y.M.:** The resin that we use in connectors is partly wasted in the molding process. Think of the plastic frame that the parts of a plastic model kit are connected to. Once you have separated the parts that you need, the remaining frame gets discarded. I would like to reuse this part. Naturally, some of this is already being reused. However, many customers are concerned that in reusing it, the characteristics of the resin might change. In the field of micro-connectors in particular, we conducted verification based on evaluation data to confirm there are no issues arising from reuse in order to reassure our customers. We need to have customers' understanding on this issue, so it is necessary to work on it together.

### What is the key to promoting sustainability for the Hirose Group going forward?

**T.W.:** The most important point is whether or not we can use this to create business. If a business cannot generate profit, then it is not able to continue, and it will not be able to contribute to social development or environmental protection, so it cannot be considered to be truly sustainable. Over the past two to three years, I've been taking PET bottles to the convenience store recycling box instead of throwing them in the trash. The reason is that I can earn reward points. So based

on my own life experience, I think that this way is the most sustainable: where we have some degree of personal benefit as well as a contribution to society. When the whole company works together on something, I think that it is important that we also feel some personal benefit as though it will be profitable.

**Y.M.:** Another key aspect is partnerships with other companies. Our work with Fairphone is a case in point here. Since connectors are connecting parts, there are many aspects that we cannot handle on our own, and our partnerships with other companies are very important. I am always telling people that the most important of the SDGs for promoting sustainability is "Partnership for the goals." Hirose in particular works with a large number of subcontractors in its business activities. First, I would like to promote sustainability initiatives with our cooperating partners we work closely with on a daily basis. It is vital for the promotion of sustainability that everyone throughout the supply chain can have a sense of pride that their own work is helping to achieve sustainability.

**T.W.:** I think that this kind of initiative needs to be led by young and mid-level employees such as ourselves. We want to protect the future that we will inhabit, along with our children and grandchildren. Also, since the children have many opportunities to learn about the SDGs, I often hear children talking about them. Compared to the older generation, the younger generation may have more opportunities to feel that sustainability is an issue that affects them closely. Hirose has developed a corporate culture where people who feel motivated can take on challenges of their own volition. As young leaders continue to make progress, I think that sustainability will be gradually promoted throughout the

Company internally.

**Y.M.:** One of the unique points about this project is that employees are acting autonomously. Hirose has an extremely flat workplace environment, which enables all of the project members, including myself as the leader, to express their opinions and act freely. It is a good culture in that people who volunteer to do something will be allowed to do it. We also make regular reports to the Board of Directors, and they always encourage us to keep moving forward. From the Outside Directors especially, we receive objective advice based on their experience outside of Hirose.

To promote the SDGs as we head towards 2030, it will require not only internal efforts, but also cooperation from everyone who we are involved with, such as our customers and subcontractors. First, I would like to promote the message that "Connector Is Sustainable," and encourage individual employees to create new actions based on their realizations and ideas. To realize a Hirose Group that embodies the vision of "co-creating the society of the future with the power of 'connection'", the entire Group will work together to accelerate its initiatives for sustainability.

\*Ethical: Purchasing and consumption, and products and services, that are considerate of the environment, people, and society

\*Fairtrade: A scheme for continuously purchasing materials and products from developing countries in order to improve the living standards and achieve the independence of producers and workers. Must comply with the standards set forth by the World Fair Trade Organization

Sustainability Management Key Theme 1

# Year One for More Focused Development and Growth of Human Capital

**Vision** Employees and the company continue to take on challenges and grow together  
Remain an “evolving” company where employees can take on challenges and actively work hard

## Year one for more focused development and growth of human capital

We have been building three pillars since fiscal 2016. In this process, the businesses that we focused on began to bear fruit, and in fiscal 2021, we judged that we had arrived at the point of harvesting it. In reaching this point, we give credit to the human capital who have resolutely taken up completely new challenges across divisions, and we will reform our human capital development systems in order to redefine the skills needed for the coming era.

At the heart of this effort is a new personnel system that has been phased in from fiscal 2022. This system evaluates employees according to their performance and contributions, but that does not mean that it is simply a results-oriented system. The core concept of the system is “human capital development,” and it is found in the practice of the HIROSE Philosophy and in stimulating workplace communication. We aim to deepen our human capital strategy by achieving both “Hirose people” and diversity globally.

## Environment surrounding the Hirose Group and approach to human capital

While there is much talk of the “new normal” originating from the COVID-19 pandemic, this is actually the third time that we have experienced environmental changes of this scale. Looking back to the past, the first time was our entry into the mobile phone business during the arrival of the internet society (1990s), while the second time was our full engagement with general industrial equipment business in the wake of the global financial crisis. Each time, Hirose has transformed change into opportunity. Hirose’s defining characteristics are its coverage of diverse markets and a huge range of products and customers. Faced with these changes, it is difficult to mount a speedy response with management decision making alone; cross departmental collaboration and autonomous challenges on the front line are essential. It is important to define our vision for human capital in accordance with business in this way, and to focus on human capital development perspectives such as talent selection, training, retention, and continuance.

## Human capital vision of Hirose Group

1. Persons who connect wisdom in and outside company and produce new value
2. Persons who focus on teamwork and maximize the effects of organization
3. Persons who constantly learn with an earnest and humble attitude and continue to grow
4. Persons who take on challenges and set high targets with a sense of personal responsibility and speed
5. Persons who have strong thoughts and will to realize high profits, and have creativity and a sense of innovation and improvement

### Perspective of developing human capital



## Fiscal 2022 initiatives of the “Year one for more focused development and growth of human capital”

### Initiatives of the “Year one for more focused development and growth of human capital” 1 : Introduction of a new personnel system

Aiming to realize continuous global growth, the Hirose Group continues to aim to be a company that evolves by “taking on challenges” and “actively working as hard as possible.” To realize this goal, in April 2022 we started operating a new personnel system, guided by the concept that the growth and invigoration of people and the organization are important. Under the new personnel system, we are working to accelerate the growth and invigoration of people and the organization, and to implement human capital management with a high level of agreement, from Hirose’s human capital development perspectives of “talent selection, training, retention, and continuance + improving organizational capabilities.”

#### New personnel system 1 Activating communication and cycle of human capital development

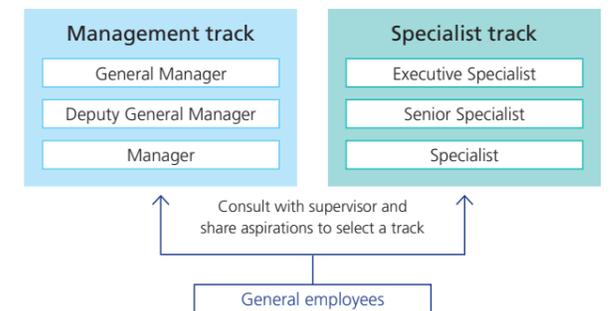


Work through a human capital development cycle utilizing two-way communication between supervisors and team members at every phase

By working through a PDCA cycle using the personnel evaluation system as a human development tool, we are building a mechanism for promoting the continuous growth and invigoration of employees. The system has employees and their supervisors communicate directly at every phase in the cycle, so that they can share the direction and vision of the Company, developing understanding and empathy through dialogue to promote human capital development. For Hirose to grow, it is important that employees work with motivation and autonomy, and that autonomous employees come together to invigorate the organization. We aim to enhance transparency and agreement, and to realize a workplace environment where people can work with motivation by having them confirm their own growth plans and evaluations through dialogue with their supervisors.

#### New personnel system 2 Offering multiple career paths

To offer employees multiple ways to work in the Company, we have introduced management and specialist tracks. We have clarified the specialist track as a track for people to demonstrate high level expertise, providing employees with the opportunity to think subjectively about their own careers based on their individual abilities and aptitudes, and choose the most suitable path for themselves. By clarifying the management and specialist tracks for employees, we will encourage them to enhance their aptitude and skills and to develop their abilities.



#### Further activation of human capital development

To promote further activation of human capital development, we actively conduct organizational invigoration surveys and 360-degree evaluation. The organizational invigoration survey measures and confirms an improving trend in issues with human capital development, and allows us to ascertain the status of employee satisfaction and stress in the organization. The results will be reflected and used in our future initiatives. The 360-degree evaluation supports individual and organization growth and good team management by visualizing individual employee suitability and challenges, and recognizing the opinions of those around them.

### Initiatives of the “Year one for more focused development and growth of human capital” 2 : Enhancing training for the development of global human capital

We are enhancing training for the development of human capital who can support continuous growth globally. In fiscal 2021, we conducted a new English language training program to increase opportunities for employees to encounter English language. We introduced a program designed to be easy for employees of wide ranging English language levels to participate in and continue. As a result, approximately 1/5th of the employees of Hirose in Japan (including plants) participated voluntarily in the program, increasing the number of participants by around 20-fold compared to previous levels. The program was conducted several times throughout the year, helping employees to improve their English language ability. We will strive to strengthen our human capital development training, including English language training, and to encourage employee growth. At the same time, we envisage carrying out globally coordinated initiatives to develop human capital who will be responsible for realizing Hirose’s vision.

## HIROSE Philosophy

### 「The Hirose Group's common values — HIROSE Philosophy」

Throughout its history, the Hirose Group has created various values based on its unchanging corporate philosophy, "a small company connecting wisdom," and has grown by passing these down and practicing them. The HIROSE Philosophy is a system of six of these values that we have selected by carefully examining them to determine which of the values are the most fundamental. The HIROSE Philosophy is the common values of the globally expanding Hirose Group, and will serve as the Group's "fulcrum for reasoning" and the "fulcrum for action" going into the future. To continue growing in an era of change marked by continuing globalization and diversification, the Group needs a unifying force that will inform all of its decisions and strategies. Moreover, the HIROSE Philosophy is also the Hirose Group's corporate culture, and a corporate culture can also be considered the dominant driving force for growth, more than any strategy. By sharing and practicing these values globally, we will continue to realize growth going forward.



- 1 Connecting wisdom**  
 Taking a wide view of the world and actively connecting wisdom found both inside and outside the Company, we will create new value through communication and teamwork.
- 2 The principle of "being small"**  
 We will recognize our own smallness, always studying earnestly and modestly with the aim of getting bigger tomorrow than today and achieving unlimited growth.
- 3 A small company of smart people**  
 Individuals will grow by accomplishing their own work with a mindset of achieving maximum results. We will aim to maximize productivity with teams made up of these strong individuals.
- 4 High added value**  
 We will identify the needs of customers and the markets and achieve high satisfaction and trust by providing products and services that offer Hirose's distinctive value.
- 5 Always taking the lead, pursuing the cutting edge and achieving differentiation**  
 We will develop new technology even one step or half a step ahead under the concept of differentiation that contributes to customers, and provide value to customers when they really need it.
- 6 Continuing to be a "high flier"**  
 Each individual will set high goals and continue to take on new challenges aiming for continuous growth.

### 「Spreading the HIROSE Philosophy further」

In fiscal 2022, as part of the initiatives of the "Year one for more focused development and growth of human capital," we have been promoting activities to spread and implement the HIROSE Philosophy further. Up until now, the HIROSE Philosophy has been passed down to employees, who implement it in their operations. The world is changing dramatically, and the employees are growing increasingly diverse in their ways of thinking and their roles. It has become important to realign the overall direction of the Hirose Group. We continue striving to increase the unity of Hirose by updating the HIROSE Philosophy, our common values, with the times and further promoting activities for sharing them.

In strengthening activities to pass down the HIROSE Philosophy, we used organizational invigoration surveys of the overall organization and individual groups to gauge Hirose Electric employees' level of understanding and empathy with the HIROSE Philosophy, and their impressions of the values. We then conducted a comparison and analysis of the results. We implemented measures such as conducting seminars and workshops for new employees and mid-career hires and displaying in-house posters, which has raised the overall level of employee understanding of and empathy for the HIROSE Philosophy, although some variation remains between groups. We have also embedded the approach of the HIROSE Philosophy into operations, so that most employees use the six values as a standard for decision making in their work.

Item	Overall 1,484	Group				
		A Group	B Group	C Group	D Group	E Group
I understand the content of the HIROSE Philosophy.	4.18	4.38	4.20	4.13	4.06	4.40
I empathize with the HIROSE Philosophy.	3.95	3.96	3.73	3.95	3.95	4.11
I understand what I should do in accordance with the HIROSE Philosophy.	3.81	3.98	3.83	3.76	3.67	4.09

#### ○ Launch of the Philosophy Committee

The Philosophy Committee was launched with the objective of encouraging people to share, empathize with, and pass down the HIROSE Philosophy.

The core membership of the committee is made up of mid-level employees gathered from each division and business site, who come together to discuss from diverse perspectives the content of the values, and how to pass them down. By providing opportunities for dialogue between committee members and management, we are working to promote activities for passing down the philosophy with a high level of agreement by incorporating a good balance of opinions from both sides.

#### Phase 1 → Updating the HIROSE Philosophy

We conducted a discussion from the employee's perspective regarding the message and explanation of the six values of the HIROSE Philosophy. We selected mid-level employees from each business group, including employees stationed overseas, and discussed our thoughts regarding a new message in step with the times and the necessary systems for continuously implementing and deepening activities for passing down the philosophy. The President attended the meetings of the committee and engaged in numerous dialogues with the committee members.

#### Phase 2 → Global activities to pass down the philosophy

In order to promote activities for sharing the philosophy in forms that align with local cultures and values while also incorporating diverse global approaches, we gathered people, including local employees, from the headquarters as well as Japanese and overseas plants and overseas sales offices to hold numerous discussions regarding the HIROSE Philosophy.

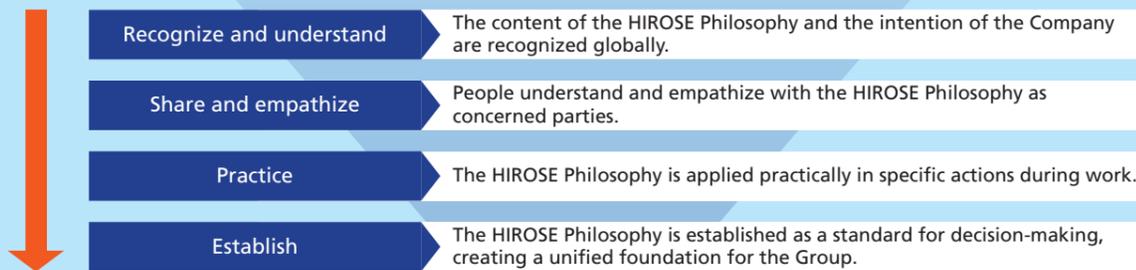


Activities of the Philosophy Committee

**1** Confirmation and understanding of the values

**2** Review of activities for passing down the philosophy that enhance sharing of and empathy with the values

Steps towards “unconscious practice”



## Aiming to realize our ideal vision through “unconscious practice” of the HIROSE Philosophy

The basis of the activities to pass down the HIROSE Philosophy is to consider whether or not there we have a sense of agreement globally. It is important that these activities have the understanding and empathy of diverse human capital of different languages and cultures. If any gaps in understanding or recognition become apparent, then these are discussed until everyone can agree with them. As a result, the sense of discomfort changes to empathy and understanding is deepened through this communication. First, we will conduct activities to share the philosophy globally, conducting numerous discussions with the aim of having each employee feel a sense of agreement.

### ○ “Unconscious practice” of the HIROSE Philosophy

For the Hirose Group, the HIROSE Philosophy is about more than simply passing down values, it is the fulcrum for decision-making in our various operations. “Unconscious practice” refers to a state in which individuals practice the HIROSE Philosophy as a matter of course in any given situation without consciously thinking about it. The Hirose Group’s vision is to have employees practicing the HIROSE Philosophy and conducting business operations with a sense of unity.

#### Practicing the HIROSE Philosophy Application in the new personnel system

To promote understanding and practice of the HIROSE Philosophy, in the new personnel system introduced in fiscal 2022, we have established personnel evaluation items based on the philosophy’s values. By incorporating the HIROSE Philosophy into the personnel system, we aim not only to make employees themselves more conscious of the philosophy, but also to increase opportunities for dialogue about it with supervisors, organizations, and the Company. Through such dialogue, we aim to have people develop a shared awareness of the values. We have organized and standardized our evaluation system, vision, and mindset tied into the HIROSE Philosophy across the Hirose Group. However, for areas other than the parts that serve as a foundation for our thinking, we are working to optimize them for each region.



## Practicing the HIROSE Philosophy

The HIROSE Philosophy, the Hirose Group’s common values, is passed down to employees, who use it as the fulcrum for reasoning and action in operations. We asked young employees to talk about how the HIROSE Philosophy has become established and how they feel about it in their work.

### Q Please describe your current job.

**S.A.:** I am in charge of developing new optical fiber connector products. Hirose’s core products are electrical connectors, and there are not yet many people in the Company who have a deep knowledge of optical fiber connectors. However, optical fiber connectors are resistant to the effects of noise and can pass through signals at high speed. As such, these products can solve customers’ issues in various situations. In addition to designing connectors, I also run study groups and so forth to cultivate a deeper knowledge of optical fiber connectors inside the Company.

**T.Y.:** I work in the equipment engineering division, where we develop equipment for mass producing connectors designed by the engineers. My job is to develop new equipment concepts in production engineering, with a particular focus on manufacturing five or more years in the future. Since I am involved in all of the processes needed for making connectors, such as molding, pressing, plating, and assembly, it is challenging to broadly understand the overall process with an overarching view, but I think it is a valuable experience.

**Y.T.:** I work in sales to manufacturers in Japan, and I am in charge of industrial machinery, mainly robots, machine tools, and automated guided vehicles (AGVs). We have two main

jobs in Hirose sales. One is to propose products that will help to solve customers’ issues. The other is to visit customers with our engineers to uncover latent needs that lead to the development of new products. Before I joined the Company, I had the idea that sales involved just selling existing products. However, I feel that sales at Hirose is more interesting, where we work with engineers to create something completely new.

### Q Is the HIROSE Philosophy something that is familiar to you?

**Y.T.:** I feel that we are practicing the values of the HIROSE Philosophy in various settings, such as our work and in projects. We receive a simple explanation of it at the Company explanation meeting before joining and at the training after joining; however, it isn’t like sitting there and being lectured about it. I think it is passed down naturally to employees implicitly when they see how work is done at Hirose.

**S.A.:** In my department, we are given an opportunity at our morning meeting to share our experiences that relate to the HIROSE Philosophy. We don’t have training about the HIROSE Philosophy itself, but I use the opportunity of listening to various people talking about it to deepen my own understanding and think about it myself.

## Dialogue Practicing the HIROSE Philosophy

**T.Y.:** In my department also, we have weekly meetings where our discussion is modeled on the HIROSE Philosophy. We talk about values with regard to things that we have noticed in our daily work, and things that we have reflected upon. There are opportunities to learn from listening to other people's experiences, but the way that work is done at Hirose and the Company's strengths embody the HIROSE Philosophy, so I think that we absorb the philosophy naturally as we work.

**Y.T.:** Yes, I agree. In sales, my job is to propose connectors to customers; and this requires expansive knowledge because there is such a large range of Hirose products. If I ask openly about things I don't understand, the engineers explain it to me directly, and this makes me feel that the values of the HIROSE Philosophy are firmly embedded as the Company's culture.

### Q In what kind of situations do you feel that the HIROSE Philosophy is being put into practice?

**T.Y.:** As I explained, my work is to take an overarching view of all manufacturing processes and strengthen Hirose's manufacturing. Apparently, this means that our department was originally staffed with people who had accumulated knowledge and experience in various departments. However, since Hirose has a very special approach to manufacturing, I was assigned there with the idea that a new person with a blank slate would be more able to carry on the culture and absorb new knowledge without reservation. I was the first new person in the department, so I was both surprised and nervous. One of Hirose's unique concepts is its approach of integrated production, where the connector component manufacturing and assembly lines are connected and work in synchronization. If speed is increased in just some of the steps, it won't increase the number of connectors manufactured, so it is necessary to optimize the overall manufacturing process. We therefore work in coordination with our collaborating partner companies, who are professionals in each step. We are not striving for individual optimization, so our work is not about dry relationships where we just seek to meet the required specifications. We work



## Practicing the HIROSE Philosophy



together to get the equipment up and running on the mass production front lines, while sharing opinions frankly with one another. I've learned this approach of exchanging opinions directly while learning with humility by observing how my senior colleagues work. I feel that practice of manufacturing at Hirose is itself connected to the principle of "being small," and enables this value to be passed down.

**Y.T.:** What really surprised me when I first started in sales was that sales is linked with product development. One of my senior sales colleagues proudly told me that they had created a certain product. I really admire how sales personnel can have such a strong spirit that enables them to anticipate new needs and leads to product development.

I am involved in an in-house project that mainly involves young employees. This project is to encourage young employees to take on challenges. It involves free activities that don't need to be connected to our work. It could be a proposal for a growth market or a new customer in whom we have an interest, or a course of study to deepen our knowledge about a product that we want to specialize in. It is starting from zero, with searching for customers, so I don't have any model for follow. However, I am trying various approaches, such as finding an interesting gadget that has been proposed for crowdfunding and making contact with the company and so forth. Connectors are used in an extremely wide range of devices. I find it exciting when in the course of my activities I take apart familiar products such as facial care devices and find connectors in them. This project is very motivating. I think that the opportunity to find a customer myself, take apart the customers' devices to learn about them and then ultimately develop a completely new product is something that I would only have at Hirose, being a "small company of smart people."

**S.A.:** I believe that optical fiber connectors are truly products

that lead, pursue the cutting edge, and achieve differentiation. Unlike the electrical connectors, optical fiber connectors do not generate electromagnetic noise, and carry no risk of electric shock or short circuiting. For example, there is demand for optical fiber connectors in medical equipment used inside the body, where safety is of paramount importance. Optical fiber connectors are also able to handle the increase in data traffic and transmission speeds, in addition to which they are small and lightweight, and are resilient against faults due to noise and so forth. As such, there are still many markets that can utilize this high performance, which differs from that of electrical connectors. I believe that the era of optical fiber connectors will come at some point, and I am preparing for it by developing products. However, although they are a cutting-edge product, on the other hand there are many customers who have not yet used optical fiber connectors. Optical fiber is vulnerable to bending, due to the nature of optical signals and its strength. It also requires different treatment from electrical connectors when used on a circuit board. Therefore, we are working not only in product design, but also to help customers and Hirose employees understand the benefits of optical fiber



connectors by holding study sessions. It is difficult to explain the subtlety of optical fiber connectors, but I believe that these activities are also important for taking the lead, pursuing the cutting edge and achieving differentiation.

### Q Please share your goals for the future.

**T.Y.:** I enjoy collaborating with others to physically create my own concept, and I want to continue working close to the front lines. In my current department, I am able to get involved with various processes and equipment as my job is very wide-ranging, and I also gain experience collaborating with many people inside and outside the Company, so I hope to learn more.

**S.A.:** I originally wanted to design connectors, and now I am achieving my aspirations. However, the work of Hirose engineers covers a very wide range. In addition to design, the engineers' activities also run from ensuring return on investment in developed products to sales promotion. My junior colleagues also work very hard not only on designing products, but also on improving business processes, and I feel the need to keep ahead of them. While I am working at Hirose, which is known for its high earnings, I want to broaden the scope of my work beyond the field of design to include having an awareness of business as well.

**Y.T.:** My goal is to become a communication professional. It's about finding out what the other person wants, and getting them the right answer quickly. I think that in addition to being a good speaker, another aspect of communication is doing in-depth research on the other person's background. That is what the job of sales is really about. Without a knowledge of the customers' devices, we cannot propose the optimal connectors. As part of our in-house project, we study how connectors are used by creating a mounting diagram of the internal parts of a machine tool. I want to provide feedback on what I learn to others in the Company and someday to use this for developing a new product.

# Carbon Neutrality

## Toward achieving carbon neutrality

Aiming at the realization of a vision to “co-create the society of the future with the power of connection,” the Hirose Group has been addressing various social issues. We particularly take the task of decarbonization seriously when it comes to engaging in pressing challenges of climate action. As such, with “electrification” serving as a keyword in the decarbonization of society, the role of connectors as connecting components is becoming increasingly important with the electrification of transportation and industry.

As a connector manufacturer that serves a wide range of fields including consumer equipment, automotive, and general industrial equipment, the Hirose Group has a product lineup that contributes to the electrification of automobiles and realizing smart factories. We have been encountering increasing demand for such connectors amid recovery from the COVID-19 pandemic, and have accordingly been developing new products while augmenting our production capacity.

## Scenario analysis: risks and opportunities

We have assessed the impact of global warming on the Hirose Group’s operations, upon having identified its risks and opportunities with respect to climate change under 2°C and 4°C global warming scenarios.

<b>2°C scenario</b>	Society strengthens various regulations seeking carbon neutrality and business partners have responded accordingly. Taking action with respect to renewable energy and energy conservation becomes an imperative.
<b>4°C scenario</b>	Society holds to the status quo. Physical risk mounts amid a lack of effort to promote a shift to lower-carbon and decarbonization.

	Risks / Opportunities	Scenario	Impact on our business	Evaluation
Risks	Physical risk	4°C	<ul style="list-style-type: none"> <li>Higher costs due to difficulty in obtaining raw materials amid supply chain disruptions</li> <li>Lower sales due to factory shutdowns</li> </ul>	Large
		4°C	<ul style="list-style-type: none"> <li>Prolonged discontinuation of production due to lockdowns</li> </ul>	Large
	Transition risk	2°C	<ul style="list-style-type: none"> <li>Greater cost burdens due to introduction of carbon tax</li> </ul>	Medium
		2°C	<ul style="list-style-type: none"> <li>Factory shutdowns due to power restrictions</li> </ul>	Medium
Opportunities	Customer requirement	2°C	<ul style="list-style-type: none"> <li>Loss of business opportunities due to delayed action to achieve decarbonization</li> </ul>	Large
	Spread of next-generation automobiles	2°C	<ul style="list-style-type: none"> <li>More sales opportunities due to progress in achieving size and weight reductions aiming to reduce power costs</li> </ul>	Large
	Introduction of emission controls	2°C	<ul style="list-style-type: none"> <li>More opportunities for sales of connectors for storage batteries and energy-saving equipment amid rising demand for such products</li> </ul>	Medium-large
	Regulations on recycling and plastics	2°C	<ul style="list-style-type: none"> <li>More connector sales opportunities and greater added value associated with more stringent regulations</li> </ul>	Medium
	More stringent regulations on repairs	2°C	<ul style="list-style-type: none"> <li>Connectors essential for repairs achieve greater social standing</li> </ul>	Medium

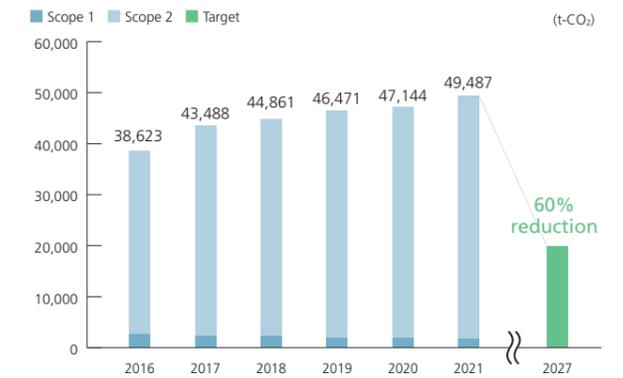
The Company’s governance and business planning is to reflect the above risks and opportunities.

## Setting targets for reduction of CO<sub>2</sub> emissions (Scope 1 and 2)

- “60% reduction in CO<sub>2</sub> emissions by fiscal 2027 (relative to fiscal 2021)”
- “Carbon neutrality by fiscal 2050”

Based on scenario analysis findings, we set a new CO<sub>2</sub> emissions reduction target in fiscal 2022 aiming to keep effects of climate change to 2°C or lower.

The new target applies to the Company’s Scope 1 and 2 emissions in prompting us to work toward the ambitious goal of achieving “60% reduction in CO<sub>2</sub> emissions by fiscal 2027 (relative to fiscal 2021)” over the medium term, while aiming to achieve carbon neutrality by fiscal 2050.



## Initiatives for reduction of CO<sub>2</sub> emissions

We will also actively seek to introduce renewable energy in addition to our energy conservation efforts. For instance, we installed solar panels over the entire rooftop area of the Suzhou factory using an on-site power purchase agreement (PPA) in fiscal 2021, which has thereby enabled us to access to consistent power supply even during China’s electric power crisis in the fall of 2021. Meanwhile, the Ichinoseki factory is now powered by 100% renewable energy as of fiscal 2022 due to an agreement to procure electricity derived from renewable energy.



Suzhou factory (China)

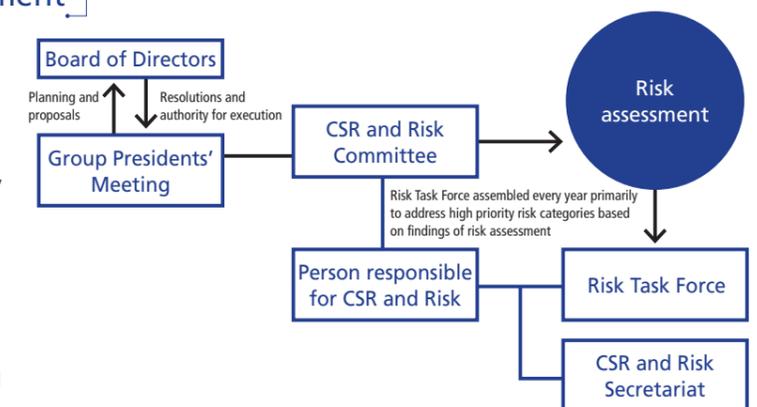


Ichinoseki factory (Japan)

## Governance and risk management

The Hirose Group’s management decisions regarding issues of climate change are made by its Group Presidents’ Meeting, which consists of the President and the persons responsible for execution of each functional group, and its Board of Directors, which receives planning proposals from the Group Presidents’ Meeting to make resolutions.

Given the importance of CO<sub>2</sub> emissions reduction targets, the Board of Directors makes decisions on such targets, with the target above having been resolved at a meeting of the Board of Directors held in fiscal 2022.



# Medium-Term Business Plan

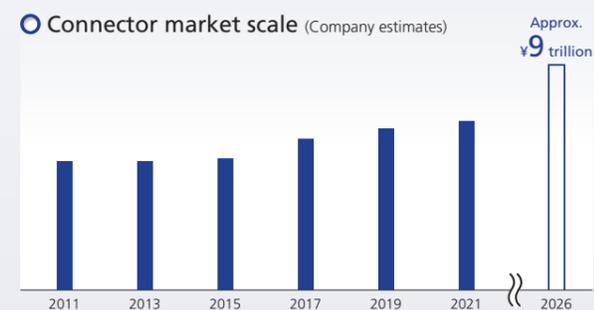
## Concept of Medium-Term Business Plan

The concept of the Hirose Group's Medium-Term Business Plan is that sustained growth is achieved through execution of initiatives that bring the Company closer to its vision rather than by simply focusing on numerical targets. Connectors are electronic components, not entire units on their own. Demand greatly fluctuates depending on the environment surrounding Hirose. As such, the Hirose Group does not focus on numbers, but rather aims for growth and quality by executing medium-term initiatives toward achieving its vision rather than simply seeking to scale. By updating the Medium-Term Business Plan every year, the Group can respond flexibly to the latest market conditions.

### Recognize market environment

The electronic equipment market is at a major turning point. The number of new electronic devices continues to grow, from information terminals like smartphones and wearable devices, and smart consumer electronics to the adoption of ICT in social infrastructure, hospitals and factories. As a result, we are entering an era where all things are connected, and digitization has been accelerating with the evolution of technology, such as 5G and IoT. We expect that demand for connectors will rise as these new connections produce big opportunities for connectors.

### Connector market scale (Company estimates)



## Medium-Term Business Plan



- Three Pillar Establishment Phase:** We aimed to deploy initiatives that target both the smartphone market, which continues to evolve, and the automotive and general industrial equipment markets in which "changes" are occurring, in order to establish three pillars which place importance on a balance of fields. We implemented prior investment in the fields of automotive and general industrial equipment, which have long life cycles, which has caused our operating margin to deteriorate. Nevertheless, we continued to conduct prior investment as we positioned this phase as a preparatory period.
- Foundation Strengthening Phase:** As the inquiries for new products for establishing the three pillars gained momentum, customers demanded stringent quality and testing evaluation, and high work-process quality mainly in the automotive field. Needing to demonstrate our tried and proven Hirose's strengths in the new markets, we reformed our work processes, which included organizational restructuring.
- Full Growth Phase:** Demand for electronic components strengthened immensely amid COVID-19 related lockdown demand and the trend of factory automation. Sales increased sharply thanks to new products prepared up until now and our abundant product lineup. We put in place preparations for growth of our manufacturing capacity and other competencies, taking the three perspectives for "growing Hirose's strengths."



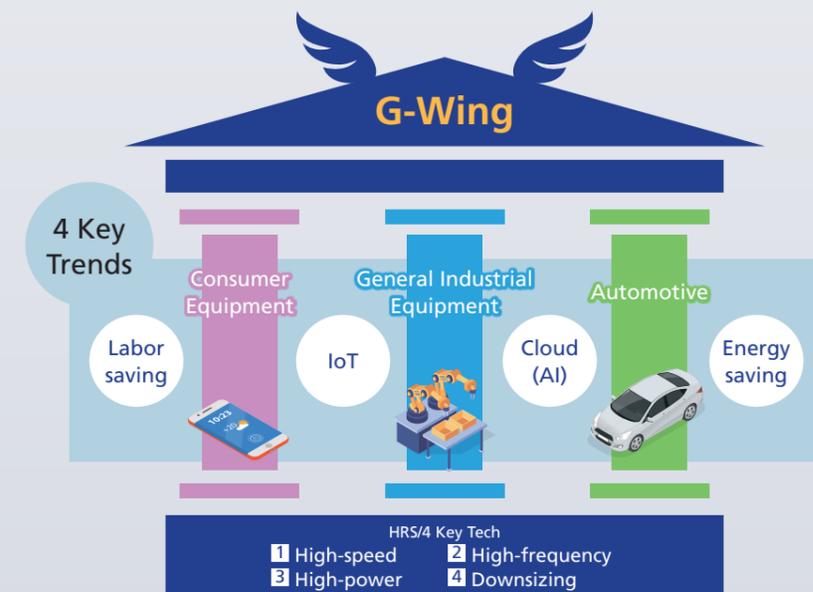
## Growing Hirose's strengths



## Basic policy Achieve further growth through G-Wing

### G-Wing

G-Wing means to win globally by spreading our wings to the globe. In the basic policy of the Medium-Term Business Plan for future growth, the Group states a strategy of steadily supporting the Company using the three business pillars of consumer equipment, automotive, and general industrial equipment, rather than focusing on a specific industry segment. Each market has their own characteristics. However, taking on business opportunities for which cutting-edge technology is required and strengthening the three pillars across areas will lead to future growth. The Group also considers "high-speed," "high-frequency," "high-power," and "downsizing" as the key technologies for growth.



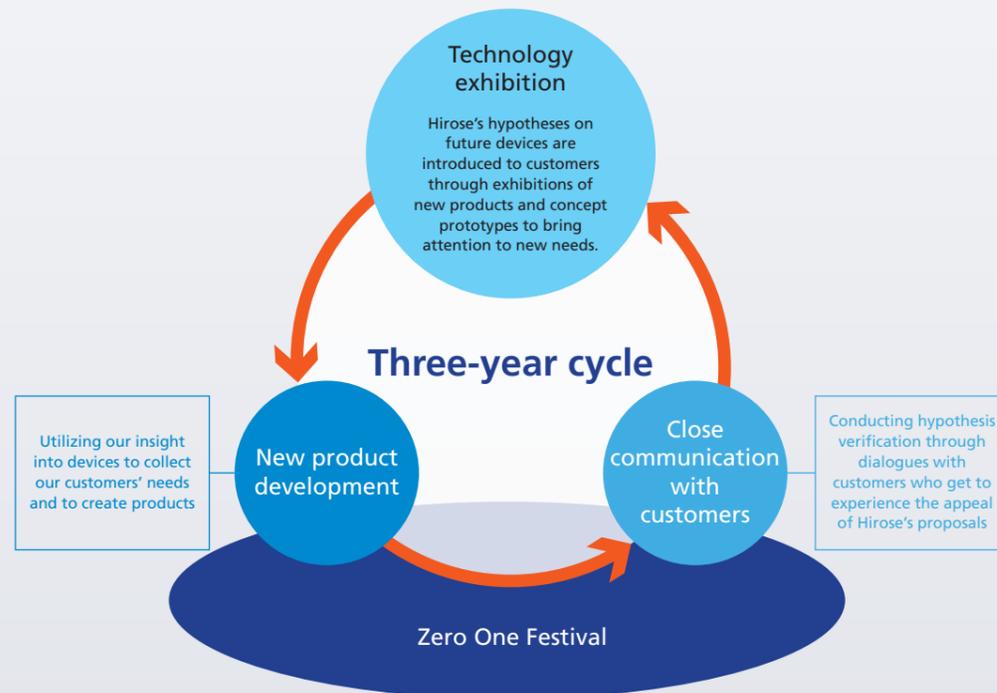
# Medium-Term Business Plan

Growing Hirose's strengths

## Initiative 1 Strengthen New Product Development "Identify Unrealized Needs"

To achieve differentiation of products, which is Hirose's fundamental core competency, it is essential that we have a deep understanding of our customers' devices. Therefore, it is important that we establish a cycle of feedback from our customers based on the hypotheses that we suggest. Then, once every three years, we hold a technology exhibition as a place where we can subject those products that we develop through such daily activities to hypothesis verification.

### Hypothesis verification through Hirose Technology Exhibition (private exhibition)



We hold the event in-house for the free expression of ideas once every three years and foster a climate of embracing challenges.

#### Characteristics of Hirose Technology Exhibition

- Future-oriented technology exhibition**  
Almost all products in the exhibition are new products, products under development, or concept prototypes at the development stage. Therefore, the exhibition plays a valuable role in the development of our customers' devices.
- Exhibition of abundant cases of adoption (actual devices)**  
We exhibit sets that have been adopted through cooperation with customers in various fields in consumer equipment, general industrial equipment, and automotive (some are displayed in their disassembled form).
- Exhibition guides are all engineers**  
The engineers who have developed the products serve as the explainers at the exhibition so visitors can learn valuable information about connector design and development in accordance with market trends.

\* The previous exhibition (fiscal 2019) attracted about 7,000 visitors



### Advanced marketing that takes the lead and pursues the cutting edge

All of the products of the Hirose Group are born from a development policy of "marketing and technological innovation."

Hirose's marketing strategy inspects unrealized needs, forecasts changes of customers' devices, and quickly proposes products with new concepts. By forecasting future needs, we are able to bring the most cutting-edge connectors for various fields into the world. Hirose possesses a strength in thinking from a customer perspective and proposing solutions.

### Restructuring of sales organization

Recently, people who carry out our sales activities need highly specialist knowledge due to the response to automobile quality and the advancement of high-speed technologies required for the three pillar structure. Moreover, to develop products that are sold more globally and universally, we also require our staff in sales divisions to be professional in the fields of the products they sell. With this in mind, we have restructured our sales organization, which was split into areas based on the overseas sales company organization, into an organization based on specific fields commencing in fiscal 2021.

Specifically, specialist teams equipped with a wealth of application knowledge provide technical leadership for a cross section of an area. In addition, in order to facilitate communication with a broad range of members on a worldwide scale, an SFA (sales assistance system) is used as the sales infrastructure to provide visualization of all sales activities.



#### Topic

#### Utilization of SFA\* (sales assistance system)

\* SFA: An abbreviation for Sales Force Automation, a tool used to visualize the progress from initial negotiations until orders, and manage sales activities

One characteristic of a connector is that the sales of one product can intersect fields and areas.

This means that the place of production and the sales area of a connector are not the same. It is therefore necessary that sales strategies and production strategies derived therefrom be developed at a global level. To make this a reality, we are aiming to create a uniformity to global sales activities and make all activities subject to visualization by actively using SFA.



**M.I.**  
Sales & Marketing Group  
Planning & Business Administration Department

**K.T.**  
Administration Group  
IT Department

Introducing SFA does not end with its introduction. It is also very important to apply its use to all sales activities. In order to use SFA on a global scale, we have been conducting sales request management and user training for representatives of each operating division. We have been using SFA for a number of years and it is in use at all business sites. We believe it is an important tool, particularly for developing field-based organizational structures and collecting information across different business locations. When there are business transfers from the design team to the EMS (electronic manufacturing services) manufacturer, the SFA can track one project over multiple business locations, and systems for coordination can also be put in place in a way that is compatible with how the SFA is introduced. The real benefit that SFA can provide to our sales staff is only beginning to be realized.

At present, the SFA covers from sales leads to process management, and it is being used in coordination with other systems to assist inputs for production planning. However, there is a wide range of possible ways that the SFA can evolve. As connectors cover a broad circle of industrial activity, it is essential that we are constantly finding enormous number of potential customers through our website and exhibitions. Moreover, to shift from there to negotiations, it is important that we engage in inside sales activities. Representatives from the IT division step in to provide support for acquiring business.

# Medium-Term Business Plan

Growing Hirose's strengths

## Initiative 2 Strengthen Manufacturing Expertise

Since fiscal 2016, Hirose has actively worked to develop new products for the automotive and general industrial equipment fields to build the three pillar structure. The product lineup we established through this prior investment formed the foundation for our sales expansion. It also, however, led to a reduction in our return on investment ratio.

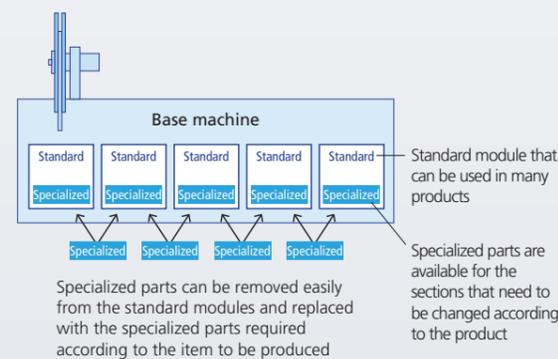
Building new production platforms capable of providing efficient mass production of these new products and transitioning to light assets by making general purpose facilities has become an important management issue in recent years. Also, due to the increase in demand for electronic components that was brought about by the COVID-19 pandemic, we are being called to build a flexible production framework.

### 1 Improvement of investment efficiency

#### Modularization of production equipment

We are proceeding with the modularization of production equipment in order to shorten lead times in manufacturing. We have developed modules that can be applied as a common part even if the connector specifications are different. By splitting components that must be changed by product into specialized parts, we were able to attach and detach them with one touch. By doing this, Hirose aims to significantly reduce parts switching times for products, flexibly and quickly respond to multi-product small-lot production, and improve investment efficiency. Also, by keeping a base machine at each production base, convenience improves even if mass production is moved between plants. By balancing optimization and universalization of production, we are strengthening new product development capabilities, and realizing manufacturing that fits an era that demands speed.

#### Image of modularization



#### Trends in the sales to capital investment ratio

Our capital investment ratio, which has continued to be bloated since fiscal 2016 has fallen to pre-fiscal 2016 levels.



\* Capital investment ratio includes investment related to production facilities (excludes land, buildings and software)

### 2 Building flexible production framework

#### Basic approach

At the core of Hirose's production system comprises a network of business partners and a flexible production framework made up of compact facilities and precision molding dies.

#### Co-creation manufacturing

Hirose's Production System is Hirose's unique manufacturing system in which products are designed in engineering divisions up to the production equipment and mass production is performed in the manufacturing plants of the Hirose Group and subcontractors. Since the engineering divisions and manufacturing plants work together so closely, it is possible to strengthen production capabilities that support advanced new product development. We are also performing improvement activities and efficient production by collaborating and sharing information with subcontractors that have knowledge. Feedback from mass production is given to the engineering divisions and utilized in new product development. The engineering divisions, manufacturing plants, and subcontractors link together and polish their approach to manufacturing.

#### Hirose's Production System



#### Topic

### Molding technology that realizes high quality and stable mass production systems

Molding dies are used to shape the component parts that comprise connectors. The manufacturing of connectors begins from the design of the molding dies. Connectors are extremely precise components. Even the slightest size difference makes a great impact on the quality. It is important to create components with a high degree of precision in order to improve the quality of the connector. Therefore, precision molding dies are an essential technology. The Hirose Group has divisions for the design, engineering, and manufacturing of molding dies within the company. By developing cutting-edge molding technology that supports precise connectors, we maintain quality and realize stable mass production.



#### Topic

### Building production capacity: Construction of new Koriyama factory

In response to increased demand for automotive connectors, we are relocating and expanding the Koriyama factory, our primary manufacturing plant. (Scheduled to be in operation in fiscal 2024) The new plant achieves greater automation of production facilities and can provide mass production of connectors for automotive and general industrial equipment. Because of the relocation to higher ground, the new plant is less prone to flood damage and offers greater operational resilience in terms of BCP.



Koriyama Seibu Daiichi Industrial Park, Koriyama-shi  
Land area: 48,000 m<sup>2</sup>  
Floor area: About 2.7 times as large as the current plant

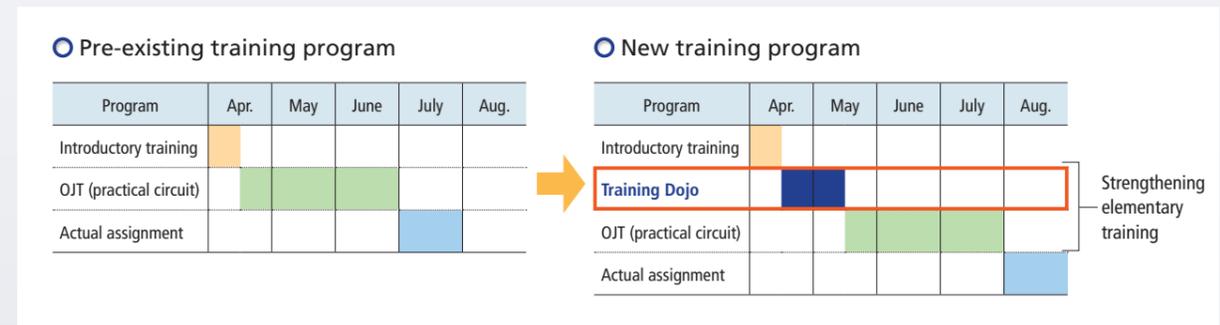
# Medium-Term Business Plan

Growing Hirose's strengths

## Initiative 3 Develop Human Capital Developing engineers who can innovate

### Developing engineers — Enhancement of elementary training

Aiming to develop engineers, Hirose Electric strives to enhance elementary training for new employees of the Engineering Group. Initially after employees of the Engineering Group complete their overall training, they are assigned to each division of the Engineering Group where they received OJT. To enhance the practical training experience at each division, we have introduced a new training program held before the trainees begin their OJT circuit of the divisions called "Training Dojo." At the Training Dojo, we aim for employees to acquire the necessary knowledge and skills required to work as an engineer. By having the trainees undertake the OJT circuit with newly acquired knowledge of basic skills, it becomes possible to provide more practical and exacting OJT, which allows our young employees to more rapidly develop skills.



#### Training Dojo program content

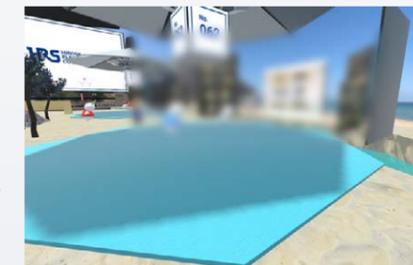
The program content of the Training Dojo is determined based on a questionnaire given to junior employees regarding what they learned over the course of their first and second years.

After learning basic knowledge such as how to read a design drawing to the design process, trainees get to use their acquired skills to analyze products, form and verify hypotheses, and report their results. By going through these sequential steps, trainees not only acquire knowledge but also follow this up with actually using this knowledge.



### Source of technical capability "Zero One Festival"

The "Zero One Festival" is held as a technology event inside the Company, offering discovery of the new potential of connectors, which leads to new products of value. The Zero One Festival is held once every three years and showcases numerous ideas of engineers from Japan and overseas, regardless of nationality, age or job title. The ideas that are showcased provide an opportunity for all employees of Hirose Electric to observe and learn, stimulate communication inside the company and offer hints for new product development. At the venue, the discussions among the explainers and the observers are quite lively. In fiscal 2021, in consideration of organizing a large event during the COVID-19 pandemic, the event was held in parallel with Hirose Group's first VR exhibition and tour. By holding a hybrid event that combined face-to-face experiences with online experiences, we were able to get many employees to participate. The purposes of the Zero One Festival are "generating innovation" and "fostering culture of taking on challenges," and both the exhibitors and the organizing staff embrace new challenges. The event provided a meeting of ideas, the polishing and refinement of such ideas may lead to enhancing Hirose's technological capabilities.



VR exhibition venue



Observational tour of Directors



Exhibition

See p. 45 for dialogue among Zero One Festival Organizing Committee

#### Topic

#### Approach regarding intellectual property

Connectors and other electronic components involve the application of numerous patents when developing to meet the various needs of various companies and customers. Moreover, by filing applications to various countries in preparation of global sales, the number of patents that we hold is exploding. For Hirose, which aims for product development that is leading, cutting edge and differentiated, the protection and utilization of intellectual property is immensely important. At the initial stage of product development, we conduct clearance searches to confirm that we are not infringing on the patent right of another company and take measures to obtain patent rights for the technological differentiation. In addition, we also provide assistance regarding licensing agreements and legal issues of intellectual property. Recently, due to the increased activity in our automotive and general industrial equipment businesses, we are placing increased priority on intellectual property with respect to appropriate acquisition of patent rights, preventing sales confidentiality and know-how from being divulged, technological cooperation with partners, etc. Moreover, as part of our response to an increase in imitations and patent evasion in various countries, it is necessary that we take swift and broad-sweeping measures to cooperate with staff in various countries to discover imitations and take measures against them. Up until now, we have conducted such operations from our "Patent Office" as a dedicated organization to acquire and utilize intellectual property rights. However, in light of these changes to the business environment, we restructured the aforementioned organization into the "Intellectual Property Section" in fiscal 2021 to make a clear shift to more aggressive intellectual property activities with a deeper involvement in business operations through the protection and utilization of intellectual property in general as a management resource. In order to cooperate with many companies, and provide our customers with products with value that encapsulate our wisdom, we will strengthen intellectual property initiatives in line with management strategy.



Intellectual property training seminar

A technology event for the free expression of ideas

# "Zero One Festival"



We hold the Zero One Festival as an in-house technology event where employees can enjoy free thinking and creation that is free from the restrictions of daily work, discover new possibilities for connectors, and foster a spirit of taking on challenges. Held once every three years, the festival showcases a large number of ideas by engineers from Japan and overseas, who can participate regardless of nationality, age, or job title. These ideas can be viewed by all Hirose Electric employees, providing an opportunity to vitalize internal communication and gain hints for new product development.

**Fostering a culture of freely taking on challenges through the Zero One Festival**

**T.Y.:** The Zero One Festival was originally proposed by Senior Managing Director Nakamura and started as a way to promote product development by fostering a culture that encourages

taking on challenges and by creating more opportunities for participation by young and mid-career workers. Zero One means "creating from zero to one" and expresses our intention to create completely new products from scratch. It focuses on creating a culture of taking on challenges under a spirit of "Don't worry about results, just do what you love!"

It is a sandbox initiative. In a sandbox, children build castles, pour water, make mud pies, and generally enjoy themselves by expressing their own ideas. The Zero One Festival was started as a place to freely give shape to ideas, like a sandbox, and to realize communication through exchange. It is held once every three years in the year between Hirose Technology Exhibitions. Half of the members of the Festival Committee are lively mood makers who can create a free and open atmosphere.

**A festival where anything is possible!**

**S.S.:** The Zero One Festival is a festival, so there are no restrictions on what you can exhibit. Anything other than food is ok. Also, it is held for individual exhibitors in principle. Teams formed within a section tend to be too conscious of the opinions of senior members and of producing results, so for the festival, we put priority on enabling the free creativity of individuals. Supervisors have also been asked to refrain from commenting on their subordinates' exhibits. Rather, we encourage everyone to participate as individual exhibitors. We were really grateful when some of the general managers from engineering divisions actually exhibited their own ideas.

Personally, I was really pleased that for this festival, an award was won by a team comprising a veteran and a young employee. I was very impressed with how the young person's creativity and the veteran's problem-solving skills were successfully combined to produce a result. The festival does not categorize participants by age, enabling this type of collaboration. This year, we had about 150 participants, counting just the engineers.

**T.Y.:** There was a really wide range of ideas exhibited, including connectors that considered AI and the environment.

**S.S.:** That's right. There were also ideas for business improvements using AI and new connection methods that are not based on contact between metals. I found the exhibits that used connectors to connect non-electronic components and devices interesting. Awards are handed out based on votes by participants. In fact, at the last Zero One Festival, I exhibited an AI-based system for business improvements, and it won first place. At that time, there was not much of a program-based

approach, but this time there were AI-related exhibits and the festival seems to have been expanded to incorporate more exhibits that were not limited to connectors.

**Y.Y.:** I got the impression that seeing other peoples' exhibits at the last festival made it easier to exhibit this time. The last festival was the first one, so it was still trying to find its feet, but this time there were many exhibits that gave a sense of expansion beyond connectors.

**S.S.:** I am glad to see that engineers are being inspired by other people's exhibits and exhibition methods and are working to improve by creating new ideas and making their presentations easier to understand. The Outside Directors have also been observing the Zero One Festival and have complimented us on evolving it to include a wider range of exhibits, such as new connection methods and robots.

**Developing a mindset for taking on challenges as organizers**

**T.Y.:** Actually, we were almost not able to hold this year's Zero One Festival. We began preparations in fiscal 2020, right in the middle of the COVID-19 pandemic, which forced us to work from home. We were really uncertain as to whether we would be able to hold the event.

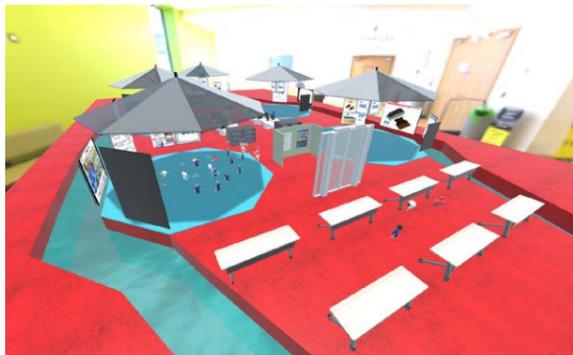


A technology event for the free expression of ideas

## “Zero One Festival”

**S.S.:** Still, we were determined not to let the fire of the Zero One Festival die out. As the organizers, we discussed ways of holding the festival amid the pandemic and came up with the idea of a VR exhibition in which the event is held in a virtual space without the need for face-to-face contact.

**Y.Y.:** I have always been interested in VR platforms and have studied them, so I took the lead in creating the VR venue. We prepared VR exhibition booths, and ideas were showcased using presentation materials and videos. With the help of our service provider, we were able to create our own virtual worlds and avatars. We created about 10 different worlds, as well as avatars that had some kind of connection to Hirose, to make it as enjoyable as possible for participants and observers. It was difficult to create something on a scale that could accommodate more than 100 exhibitors, but it was a good experience, and I was happy to see that the event was so well received within the Company.



The VR venue

**T.Y.:** To create a festive atmosphere, we wore happi coats, and decorated with lanterns and red and white curtains.

**Y.Y.:** We even prepared a place for the Bon Festival dance in the VR venue.

**S.S.:** Various in-house events had been restricted due to the pandemic, so everyone was excited that we were finally able to hold an event. There were conversations as to whether similar events could be held by other groups within the Company, and I think it had a positive impact on not only the engineers, but all Hirose employees. This was my first experience as a project leader, but I had the cooperation of many people within the Company, including help with dealing with the

security, network, and infrastructure issues involved in holding a VR event, and with submitting a request for approval to the President. I feel that this exposure to various aspects of management has broadened my horizons.

**T.Y.:** I thought it would be meaningless if the organizers who are encouraging Zero One took a defensive approach. We also wanted to create something new from scratch, so holding a VR exhibition showed a stance of taking on challenges. In fact, one of the hardest parts was selecting prizes for the winners. This time, one of the prizes for the winner was the right to feature on the cover of internal company newsletters, which I personally really liked.

**Y.Y.:** I like these kinds of non-material prizes, so I suggested using a cover appearance and interview in internal company newsletters. We wanted a prize that gave participants a sense of pride and confidence in their efforts. It also raises the winner's image within the Company, making their job easier. If you have a reputation as a person with technological capabilities, it is easier for people in sales to discuss new products. Hirose is an interesting company in that the engineers also leverage their reputations to get things done.

**S.S.:** Another result of using VR was that engineers from overseas offices were able to participate in the exhibition. At the moment, the festival is still mainly focused on headquarters, but we want to gradually expand it to incorporate the entire Hirose Group.

**Y.Y.**

Sales & Marketing Group  
Global Marketing Department



### Gains from the Zero One Festival

**S.S.:** I feel that working on the Zero One Festival has really enhanced my abilities. Although my exhibit at the previous festival involved artificial intelligence, I have since been able to study devices and circuits and gain programming knowledge, which has greatly broadened my knowledge and skills. It has been very exciting. The knowledge I have gained has enabled me to see things from the customer's perspective and deepened my understanding of design methods and how equipment works. It has been very useful in my everyday work.

**T.Y.:** It may be an exaggeration to call it reskilling, but we want to make the festival an opportunity for learning new skills. For example, participants are asked to create a PR video. Some participants are not familiar with creating videos, but they learn to use the tools, struggle to figure out how things work, and apply their creativity to realize interesting videos. It is also an opportunity to gain skills by trying out new applications, such as 3D printers.

**S.S.:** Many engineers have told us they were glad to have participated. People in technical positions tend to be highly motivated to develop products, but there are many cases where they are not able to start development on a product due to circumstances regarding customers or projects. The Zero One Festival enables individuals to do what they want to do without limitations and everyone receives an equal opportunity. I think it is a great motivation for people who have something specific that they want to do and people who enjoy taking on challenges. Through the festival, we were able to see a different side of people. For example, colleagues who are usually calm really demonstrated their passion.

**Y.Y.:** At the Zero One Festival, I was happy that I could see the immediate reaction to what I created. You don't usually get feedback on things that you do solely out of interest, so having an environment where people could tell me if they found it interesting was very motivating.

**S.S.:** I think Hirose is extremely egalitarian with respect to technology. We have a culture in which individual thoughts and ideas are respected, and in which a product is approved if it is good. This fosters an atmosphere which makes it easy for people to participate.



**S.S.**

Engineering Group  
Engineering Administration  
Department

### The future of the Zero One Festival

**S.S.:** I would like to continue the Zero One Festival. There are a lot of diligent people at Hirose, including myself, and we tend to get completely wrapped up in our work. We want to draw out the more free and open side of our colleagues by providing a place where they can give shape to their ideas in an environment that is removed from work. I feel that the Zero One Festival is good for maintaining the culture of taking on challenges that is one of Hirose's strengths.

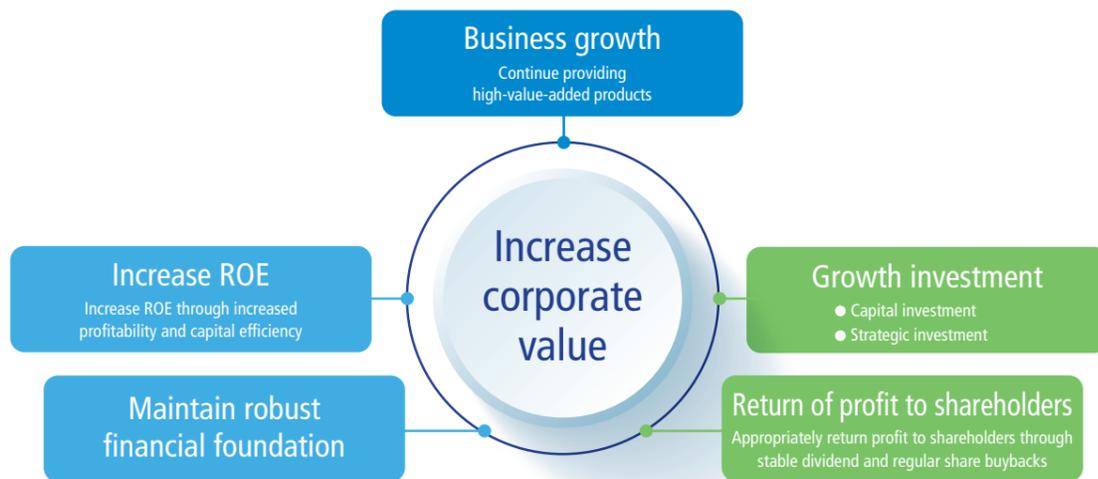
**Y.Y.:** All development costs for the festival are covered by the Company, and employees can work on their exhibits during work hours. I think it is a great advantage to have the opportunity to work on something you like at the Company's expense. Hirose has a history of emphasizing the development of leading-edge and advanced products, as well as a culture of sparing no effort or expense on new product development. I think that the Zero One Festival is a symbolic event that embodies the culture of the Hirose Group.

**T.Y.:** Many Hirose employees like festivals, so in addition to those who want to exhibit, I think there are also people who just want to enjoy the festivities. But one of the good things about Hirose is that once you start doing something, you find yourself getting serious about it. Many new employees and young engineers participated in this year's event. We will work to continue making the Zero One Festival an environment where everyone can have fun and improve themselves through friendly competition.

## Capital Policy

The robust financial foundation of the Hirose Group is one of the sources of our value co-creation model and supports new product development and stable management. By utilizing capital while balancing proactive investment in future growth and sufficient return of surplus to shareholders, as well as maintaining financial health, the Group raises medium- to long-term corporate value and pursues the interests of stakeholders.

### Basic thoughts toward capital policy



### Medium-term basic policy for fiscal 2022-2025

**1 ROE 10%** Increased from the previous target of 8% presented in fiscal 2020

**2 Dividend payout ratio 50%**

In seeking to provide differentiated products, Hirose ensures that even its employees are keenly aware of the importance of profit margins as added value, which is extensively instilled in our operational processes. As such, returning such outcomes to employees in the form of bonuses serves as the basis of our engagement, which similarly holds true when it comes to our shareholders.

Since we began to aim for establishment of three business pillars in earnest in fiscal 2016, we have been actively taking on investment that enlists a medium- to long-term perspective and thus does not contribute to sales in the short term. We have consequently adopted an approach whereby ROE serves as a financial indicator for further enhancing capital efficiency, which is in addition to periodical profit and loss serving as a profitability indicator. For improving ROE continuously, it is essential to achieve consistently high profitability, which has a high affinity with Hirose, and also aligns with Hirose's current priority of improving capital efficiency. Meanwhile, we have also set a dividend payout ratio target of 50% under our shareholder return policy. Whereas Hirose has long maintained a high dividend payout ratio, it now seeks to demonstrate its commitment to continuing to provide consistent returns to shareholders.

We will strive to increase corporate value as we keep promoting shareholder returns linked to business growth going forward.

\* This policy may be revised under the following circumstances.

- (1) In the event of sudden and unexpected changes in the business environment or earnings performance
- (2) In the event of a natural disaster or other such development prohibiting normal business operations
- (3) In the event that the need arises for substantial outlay of funds for M&A

## 1 Trends in ROE



The Group aims to achieve a continuous 10% ROE by increasing awareness of balance sheet management, increasing the free cash flow generation, and balancing business profitability and growth.

The shareholder capital cost of the Company was around 6% as of the end of March 2020, and the 10% ROE is considered a target to respond to shareholder expectations.

## 2 Trends in dividend payout ratio



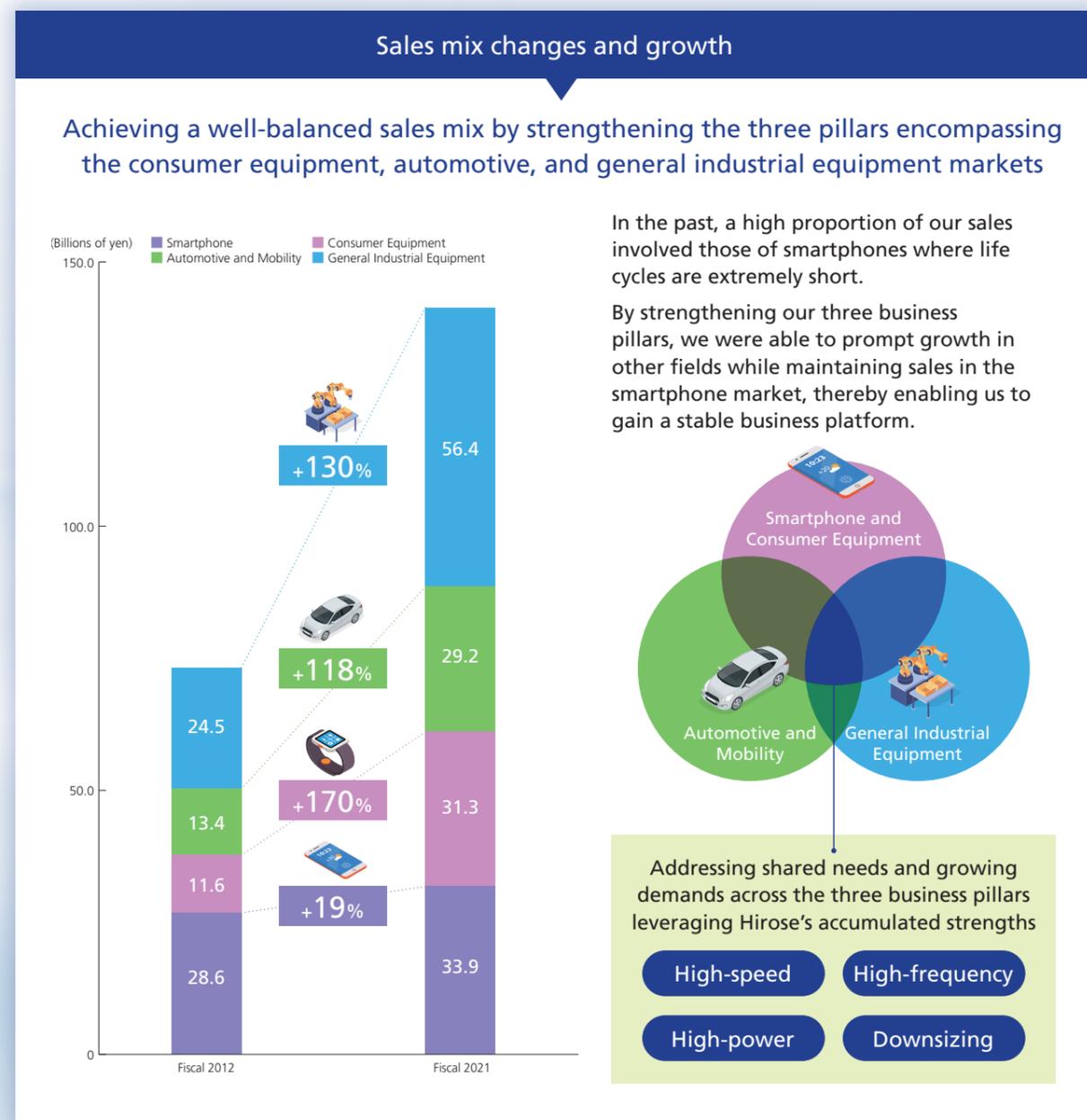
\* The amount of fiscal 2017 includes the 80th anniversary commemorative dividend.

The Company acquires treasury shares upon having taken into account ROE as well as dividends. (Acquired 936,800 shares of treasury shares on May 27, 2022)

Treasury shares that exceed 5% of total issued shares will be regularly disposed of.

## Business Strategy by Industry Segment

Hirose has adopted a functional headquarters organizational structure to enhance its expertise, while also incorporating field specific elements in the consumer equipment, automotive and general industrial equipment markets to meet different customer needs. These markets have been rapidly undergoing a shift to digitization in recent years, giving rise to technological trends that the respective fields have in common. Putting importance on development of advanced cutting-edge products, Hirose has accordingly been focusing on anticipating needs laterally across different fields and has been achieving extensive sales expansion by enlisting resources common to such fields. We also help prompt evolution of cutting-edge equipment in each field, playing to our strengths of the key technologies for enabling high-speed, high-frequency, high-power, and downsizing, with our sights set on the changing aspects of customer devices.



## Smartphone and Consumer Equipment

Sales (Fiscal 2021) **¥65.2 billion**

Aspects of business	Short	Medium	Long
Product life cycle	<b>Short</b>	Medium	Long
Volume	<b>High</b>	Medium	Low
Demand for custom products	<b>Low</b>	Medium	High

Accumulated strengths

- Substantial brand power
- Manufacturing expertise with small-sized precision equipment
- Global supply structure

## Automotive and Mobility

Sales (Fiscal 2021) **¥29.2 billion**

Aspects of business	Short	Medium	Long
Product life cycle	Short	<b>Medium</b>	Long
Volume	High	<b>Medium</b>	Low
Demand for custom products	Low	<b>Medium</b>	High

Accumulated strengths

- Heat- and vibration-resistant connector design technology
- Analysis and evaluation technology
- Quality assurance structure for automotive

## General Industrial Equipment

Sales (Fiscal 2021) **¥56.4 billion**

Aspects of business	Short	Medium	Long
Product life cycle	Short	Medium	<b>Long</b>
Volume	High	Medium	<b>Low</b>
Demand for custom products	Low	Medium	<b>High</b>

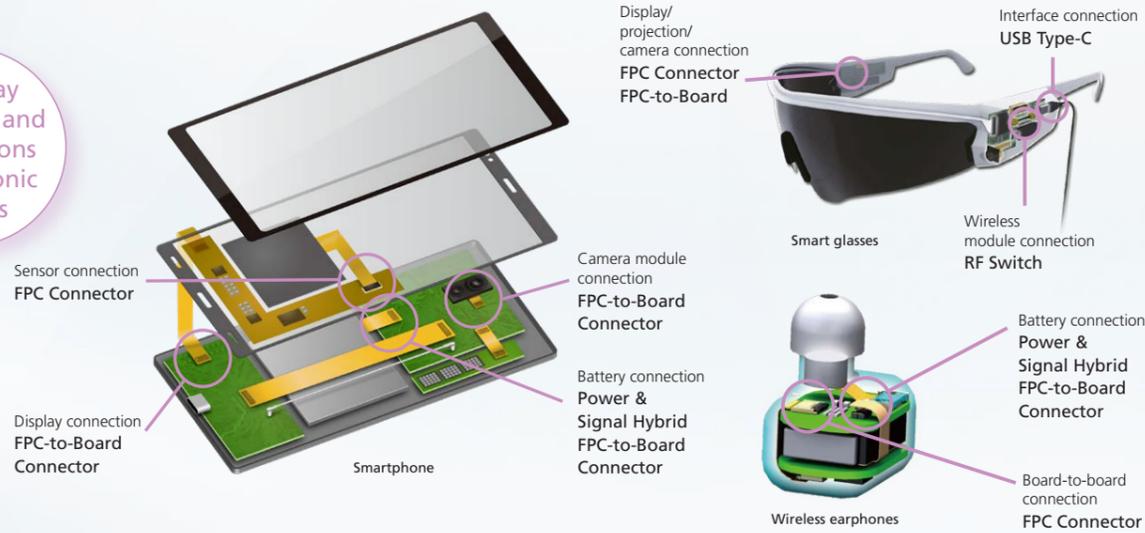
Accumulated strengths

- Achievements and knowledge amassed over more than 80 years since Hirose's founding
- Compact, robust, and high-speed technology
- Manufacturing expertise enlisting subcontractor network

\* The "Aspects of business" indicate only general tendencies.

# Smartphone and Consumer Equipment

## Mainstay products, and applications in electronic devices



## Market characteristics

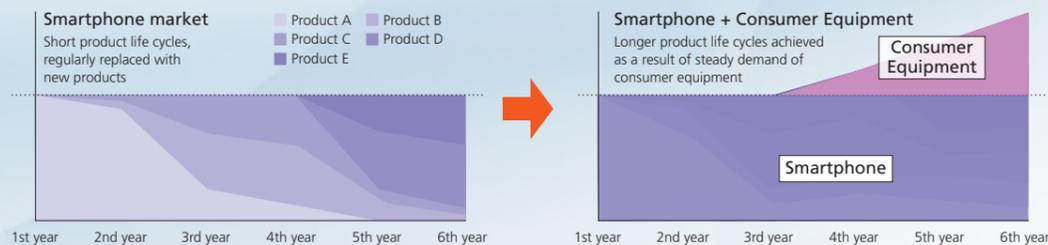
**Substantial volume**  
There is demand for a substantial quantity in independent applications, including for smartphones which have annual sales of over one billion units. As wearable devices recently having achieved widespread adoption as well, this has developed into applications that every person needs in the world.

**Rapid pace of technological innovation**  
New products equipped with new features are being released each and every season. This has resulted in constant demands for advanced, cutting-edge components and a trend toward shorter product life cycles.

**Needs for downsizing**  
Devices have been evolving to meet demands for portability and convenience since they are always close at hand. As such, demands for smaller electronic components are substantial in this market.

## Market environment

Although this market had achieved growth beginning in 2010 due to an exponential increase in the number of smartphones, unit sales have remained largely unchanged since 2015. However, there have been major changes mainly in the consumer equipment market in recent years. In the past, because small, highly-innovative, state-of-the-art connectors had been required for smartphones, it would take time to expand their use to other applications. However, even for consumer products, manufacturers are now seeking compact and high-density mounting at levels equivalent to or greater than for smartphones. Accordingly, in terms of small, state-of-the-art connectors, the compatibility between buyers in smartphone market and those in consumer market has become better, which has resulted in beneficial synergies with respect to product life cycles.



## Strategy and strengths

**Aiming to be the world's No. 1 manufacturer of micro-connectors**  
These markets subject to rapid technological innovation are an important realm for Hirose, which pursues leading and cutting-edge technologies. With smartphones as a typical example, such compact devices are full of various features, such as telecommunications, cameras, video, and batteries, and these devices serve as a treasure trove of knowledge to learn about the latest technologies. Hirose will pursue efforts to achieve further downsizing serving as a top manufacturer of micro-connectors.

**Substantial brand power**  
Players in the mobile phone market have been replaced to new all the time since the market was in its infancy, but Hirose has always stood by the side of manufacturers on the cutting-edge. This has enabled us to develop substantial product variety and to establish a solid customer base. The rapid development of wearable devices in recent years has given rise to optimum synergies as a result of increasingly more common use and sharing among products and customer bases for watches, earphones and other devices that are closely related to smartphones.

**Compact-product manufacturing expertise and international supply capability**  
Smartphones constitute a massive market with sales of more than one billion units annually. To consistently supply our products to this global market, manufacturing expertise is extremely important. Hirose has the world's most advanced technologies based on the processes of insert molding and precision molding dies, and is able to supply high-precision connectors.



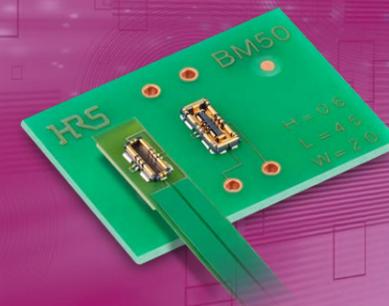
**Glossary Insert molding**  
Insert molding is a method of high-precision molding that involves placing metal terminals into a molding die and then injecting resin into the die. This method is used because the conventional method of inserting metal terminals into resin has a limitation in downsizing. It requires high-precision molding dies.

## Topic

Selected as a CES® 2022 Innovation Awards Honoree

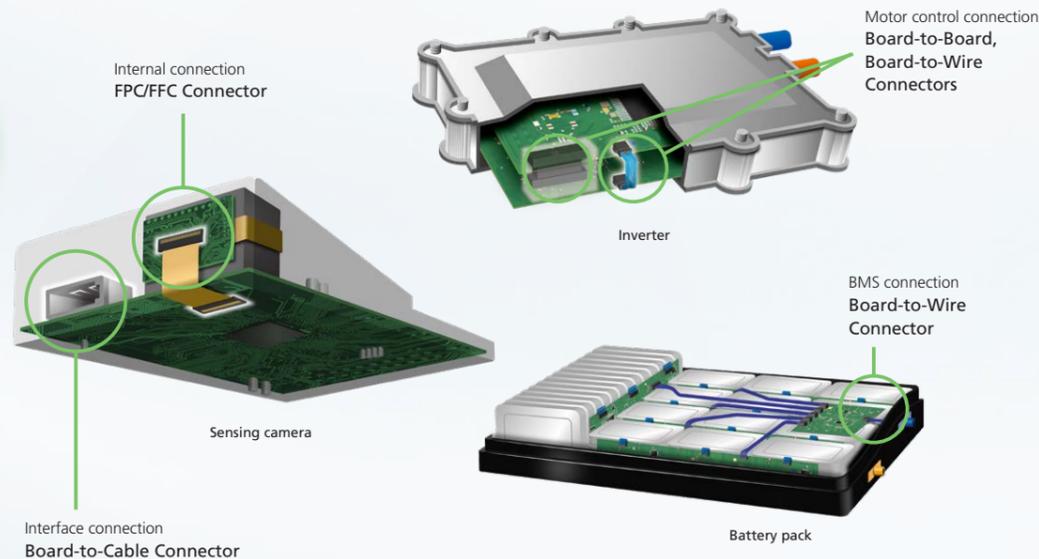
As power consumption increases along with advances in smartphone functionality in recent years, the capacity and mounting space of installed batteries has generally also increased. At the same time, demand for smaller, thinner smartphones is on the rise, making it difficult to balance both device size reduction and larger batteries. Also, larger battery capacity results in longer charging times, and demand for fast charging is on the rise. For these reasons, connectors used for battery connections are required to be small and have high power supply capacity.

Hirose has developed the BM50 Series to meet these demands. We have succeeded in reducing the mounting area by approximately 30% and the mated height by 0.1mm compared to our existing connectors. This contributes to a significant reduction of the space used inside and downsizing of devices. Additionally, while compact, the BM50 supports a high current of 15A. The proprietary board mounting design suppresses heat generation to 30°C or less even when 15A is applied. It also supports the USB Power Delivery standard, which allows up to 100W of power to be delivered via USB for fast charging. In addition, the fully armored design covering both ends of the housing with metal enhances robustness and greatly reduces the risk of housing damage due to misaligned mating surfaces.



# Automotive and Mobility

Mainstay products, and applications in electronic devices



Market characteristics

**Extremely reliable**

Automotive malfunctions can be life-threatening. That is why specifications and quality standards for parts are stringently prescribed by automobile manufacturers. Moreover, it is essential that we have a quality assurance structure equipped for maintaining product quality extending beyond quality assurance of individual products.

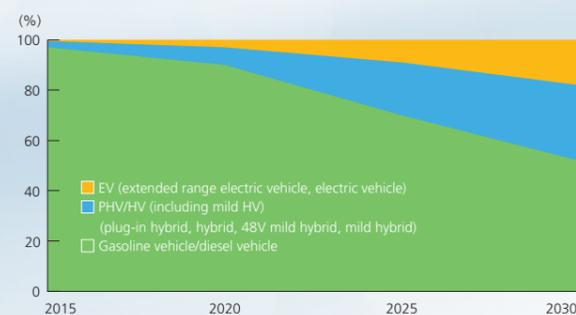
**High barriers to entry**

Automobile manufacturers engage in lengthy evaluation processes to ensure vehicle reliability. Meanwhile, because automobiles have a long life of a decade or longer, new part replacement intervals are long and installed components have a stable life cycle.

Market environment

The automotive market is experiencing major changes underpinned by trends in the realm of CASE (connected, autonomous, shared and electrification) mobility. Meanwhile, the connector market has been undergoing rapid expansion with the expectation that the number of electronic devices installed in vehicles will persistently increase going forward. One particularly significant change is the rapid shift to electric vehicles against the backdrop of increasing environmental awareness. Though still in the early stages, electric vehicles are expected to enter a phase of full-scale adoption going forward. Moreover, these trends have been accompanied by changes in major players, particularly in terms of manufacturers whose main business is consumer equipment and telecommunications entering the automotive market.

**Forecast of new energy vehicle composition ratio (as of July 2020)**



Market characteristics

Trends in the realm of CASE mobility require cross-field initiatives such as software and high-speed communications, and have involved significant changes in the industry structure. Whereas Hirose has long been engaged in the business of automotive connectors in the antennas and information systems realm, since 2016 it has been embarking on full-fledged entry into domains entailing driving, turning, and stopping. Our position as a latecomer prompts us to set our sights on such "changes" and take action on the basis of knowledge and the customer base we have developed in the consumer equipment and telecommunications markets.

**Heat- and vibration-resistant connector design technologies**

Heat and vibration resistance are requirements distinctive to the automotive market. They are required to prevent expansion caused by temperature changes and rattling due to vibration, so as to ensure stable contact between terminals. At the same time, smaller parts are also required for the purpose of reducing weight and making automotive interior space more comfortable. In that regard, Hirose has extensive knowledge regarding dimensional variation attributable to thermal effects given its experience with intricate micro-connectors, and it develops connectors that are compact yet feature substantial contact reliability as a result of developing proprietary terminal and housing structures.

**Analysis and evaluation technology**

In fiscal 2004, Hirose's Ichinoseki Testing Center acquired ISO/IEC 17025 accreditation, making Hirose the first Japanese manufacturer specializing in connectors to gain such certification, with the aim of enabling it to perform quality testing in compliance with stringent automotive requirements. This is a standard for certifying a test center's ability to generate accurate measurement results. In fiscal 2018, our EMC laboratory also acquired this certification in order to handle applications involving automotive high-speed communications, and the new wing of the Ichinoseki Testing Center began operation. We will contribute to achieving a safer and more pleasant mobility society as we strive for greater reliability going forward.



Anechoic chamber of EMC laboratory at Hirose Electric Headquarters

**Quality assurance structure for automotive**

Hirose has established the Quality Assurance Group to perform company-wide quality assurance while guaranteeing independence. In particular, our factories that handle automotive applications have acquired certification under the IATF 16949 international certification standard for automotive quality management. We have established a product development structure composed of cross-functional teams encompassing everything from receipt of customer requests to sites of production.

Topic

**Received 2020 Supplier of the Year award from Continental AG**

On September 9, 2021, the Hirose Group received the Supplier of the Year award for 2020 in the field of Electromechanics from Continental AG (headquarters: Hanover, Germany), an international supplier of automotive parts.

\* The Supplier of the Year award is presented by Continental in recognition of particularly exemplary performance by its strategic suppliers. In 2021, Continental selected 12 companies from among some 900 of its suppliers, with such companies evaluated in terms of quality, costs, commitment, and purchasing conditions.



Supplier of the Year 2020 trophy and certificate

# General Industrial Equipment

## Mainstay products, and applications in electronic devices



## Market characteristics

### Extensive range of applications

This is a broad market that includes FA (factory automation) equipment used in factories, medical equipment, and communications infrastructure, and has a wide variety of needs for components and high customizability. As such, volumes for individual orders tend to be small, which calls for multi-product, small-lot production.

### Long life and high durability

Devices for markets related to industrial infrastructure may be used for extended periods spanning a decade or more. Moreover, some devices are used in harsh environments, which calls for robust and highly durable parts, and their life cycles tend to be extremely long.

## Market environment

Since such devices have very long life cycles, the change in this market was conventionally moderate. However, we are encountering an accelerating trend of applications involving automation at factories and other such sites due to a combination of factors that include ramifications of the COVID-19 pandemic in addition to prevailing current labor shortages and rising wages.

### Changing needs amid a shift to automation

#### (1) Shift from indoors to outdoors

Whereas general industrial equipment has mainly been used in factories thus far, such equipment is increasingly playing an active role outside of factories, a trend which is exemplified by applications of robots and automated guided vehicles (AGVs). Changes particularly in terms of coordinating with people and driving on public roads have given rise to new needs such as those involving smaller components and vibration resistance.

#### (2) Shift from the manufacturing sector to the non-manufacturing sector

Manufacturing is normally performed based on repetition of designated operational processes. However, since industrial robots have been achieving more autonomy and human-like motion, such as grabbing soft objects, the area for their use has been expanding not only in the manufacturing sector, but also in logistics and medical settings.

Such advances have resulted in a situation where sensors for detection of positioning, force, light, vibration, and other such factors are now being installed across a wide range of locations. Moreover, the range of the industry is expanding amid increasing demand for high-speed, high-capacity electronic components that facilitate smooth communications.

## Strategy and strengths

In the general industrial equipment market, we deal with an extensive range of applications and many different customers. On the other hand, because the level of customizability is high, we must have extensive knowledge of our customers' devices as well. Hirose addresses such conflicting demands by working closely with customers of state-of-the-art device manufacturers and seeking to integrate their needs. We are working to provide products that align with the needs of more customers by deploying product variations with a focus on products developed in conjunction with cutting-edge manufacturers.

### Achievements and knowledge amassed over more than 80 years since Hirose's founding

In the general industrial equipment business, ensuring consistent supply of products over the long-term calls for trust and corporate strengths. In that regard, Hirose has managed to achieve growth in step with development of general industrial equipment, while amassing an abundance of expertise regarding connector connectivity and upgrading its product line. We have extensive relationships with major device manufacturers based on our background and customer trust, and create products that draw on the knowledge we have gained from our experience working with a wide variety of devices.

### Compact, robust, and high-speed technology

In order for robotic technology to replace or operate in a coordinated fashion with humans, general industrial equipment must feature numerous sensors, cameras, and communications functions, and such components need to be significantly smaller with faster operations. As a result, customers are seeking space-saving and lightweight connectors that also enable high-speed transmission, and we have been encountering increasing demand for technologies developed by Hirose thus far.

### Manufacturing expertise enlisting subcontractor network

Serving the general industrial equipment market involves multi-product, small-lot production, which calls for ingenuity to ensure timely and consistent supply of products. In that regard, Hirose has established a production framework that aligns with respective technological specialties drawing on its network of subcontractors. Moreover, we apply our integrated production approach enlisting automated machinery, which we have developed in the consumer market, to the general industrial equipment market as well, in providing high-quality products swiftly in domains requiring small-scale mass production.

## Topic

### ix Industrial™

Launched in 2017 through a technological partnership between the Hirose Group and Harting Technology Group in Germany, the ix Industrial™ series has been well-regarded for its use in various types of industrial device applications such as factory automation, robotics, and machine vision. These products have been adopted by major industrial application manufacturers in both Japan and overseas for applications involving Ethernet connectivity, due to their small size and durability. In the machine vision market, these connectors have been certified under the GigE Vision® standard, which is a widely adopted global interface standard for Ethernet (IEEE 802.3) communications established by the Automated Image Association (AIA).



Dialogue Connector High-Speed Technology



**T.O.**  
Engineering Group  
Simulation Section

# Connector High-Speed Technology

Nearly everyone has personally encountered the shift toward increasingly high-speed smartphones and other such familiar devices. How then does the “high-speed technology” that Hirose cites as its key technologies contribute to evolution of devices? Here, we speak with our in-house specialists engaged in the invisible realm of high-speed data transmission.



**T.T.**  
Engineering Group  
High-Speed Connector  
Design Division

What is meant by “high speed” in terms of connector expectations when considering an electronic device overall?

**T.T.** The role of connectors is that of serving as a signal path (transmission channel). In short, connector high-speed technology addresses the question of how best to deliver a signal sent from an integrated circuit chip without signal attenuation. Whereas cables and printed circuit boards also serve similar roles, connectors have particular challenges because they need aspect of “connecting” and it makes the configurations structurally complex. When it comes to connections requiring high-density, multi-pin connectivity in particular, it is not possible to prevent noise caused by electromagnetic waves enlisting 360-degree coverage of such connections using metal shielding. Also, connector metal terminals serving as transmission channels are complex on their configuration and tend to cause signal disruption. When it comes to an electronic device overall, connector units might be a source of worsening performance, which often constitute bottlenecks impeding high-speed data transmission.

What connector design requirements are needed to achieve high-speed data transmission?



**T.T.** First of all, connectors must have grounding\* aligned with product profiles and configurations of connector metal terminals are also a key consideration. In that regard, use of straight and short terminals helps to minimize reverberation and other forms of signal loss occurring at terminals. However, sending signals to connectors calls for structurally sound contact reliability between connectors. Firmly mating connectors calls for a terminal spring configuration, which results in that terminals have extended and intricate configurations. As such, connector design must strike a balance between such conflicting requirements.

**T.O.** My division handles the analytical technologies necessary to achieve such aims. By modeling connector configurations and simulating signal transmissions, it is possible to identify transmission properties prior to actually manufacturing connectors. We provide such findings as feedback to connector engineers, thereby enabling them to seek better product profiles. Transmission properties vary

\* Grounding entails the shortest path for return current as is installed using metal terminals, etc., for the sake of reducing radiated emission caused by return current of a signal.

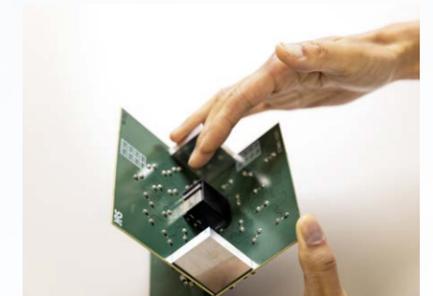
depending on terminal width and slight differences in profile. Moreover, there are many inherent issues with respect to high-speed connectors given the magnetic nature of certain metals used for plating that effect transmission properties.

Does that mean use of analytical simulation software serves a crucial role in designing connectors?



**T.T.** No. There is more to it than that. Connectors have more complex configurations than other electronic components because they are connecting parts. Moreover, because enabling connections with other units calls for connector components with a lot of circuit wiring concentrated on each circuit board, some connectors have more than 100 pins. Commercially available analytical software does not generally enlist assumptions for such complex processing, so analysis can take a week or more if models are not simplified in part by reducing the number of terminals. However, since various factors affect transmission properties in the high-speed data transmission domain, we seek to enable analysis without such simplification by customizing software optimized for connectors and are moving forward with in-house production. Also, we have been amassing knowledge of high-speed technologies on a daily basis as we analyze disparity between simulation results and actual measurements, which serves as one of our strengths unparalleled by other companies.

**T.O.** Analysis from the customer’s perspective is essential in the world of high-speed data transmission exceeding 50 Gbps for data centers and other such applications. The notion that minor variation affects transmission properties gives rise to the need for investigating transmission channels comprehensively across chips to a circuit board to connectors, as well as connectors individually. Because connectors are the most complex of all components making up transmission channels, we often perform total analysis encompassing other electronic components as a connector manufacturer that is familiar with connectors. We also coordinate our efforts particularly with chip manufacturers in performing evaluations using new chips. Hirose has also built relationships over time given substantial importance of working with electronic component manufacturers.



Dialogue Connector High-Speed Technology



I hope to facilitate development of new products and analytical technologies while collaborating with our Optical Technology Division.

**T.T.** That's a story on other electronic component, circuit boards, for instance, which are manufactured by pressing the internal structure of multi-layered laminate, are subject to varying its transmission properties to force applied during the production process. In the world of manufacturing, variation in performance is commonplace even when it comes to non-defective products. As such, we design connectors in a manner that ensures transmission properties are maintained in terms of an electronic device overall even under worst-case scenarios where variation takes a turn for the worst with respect to all components of a device. We also convey such information to circuit board manufacturers, and work with them to meet the expectations of device manufacturers.

How have you gone about developing these high-speed technologies?

**T.T.** The United States is the home of high-speed technologies. Hirose deployed a high-speed technology team in Silicon Valley in the early 2000s ahead of other suppliers. My customers were initially astonished and called me a beginner due to my lack of analytical expertise at the time. Nevertheless, because our compact connectors appealed to customers and I persisted without giving up, customers responded to my enthusiasm and assigned me tasks that involved evaluating high-speed data transmission. I persisted in taking on assignments from customers on a daily basis, while studying at the library each and every day and seeking advice from knowledgeable professionals. It was around that time that we started writing our own software. This culminated in a breakthrough around that time, thanks to Hirose's strengths in high-density mounting technology.

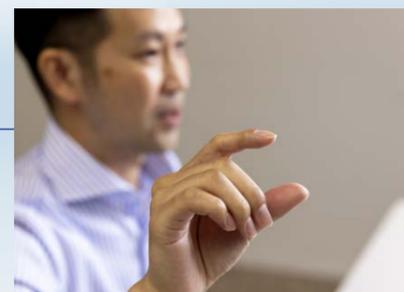
One of our customers at the time was trying to figure out how best to reliably solder a small semiconductor and a large connector to a circuit board. It is difficult to set soldering temperature so that solder melts uniformly when faced with a situation where components of vastly different sizes are to be arranged on a single circuit board. Connectors with many terminals tended to be large and stand out relative to the other electronic components. In addressing that challenge, we proposed use of a connector product divided into three separate elements (illustrated on the left\*) for the sake of keeping the circuit board mounting area to an absolute minimum while also meeting transmission performance requirements. Customer perception of us changed dramatically at the moment we managed to combine our specialty of mechanical design with our amassed expertise in high-speed technology. This enabled us to do business with leading manufacturers in the realm of data centers, which constitute the primary market of high-speed connectors.



\* A connector divided into three separate elements for minimizing its circuit board mounting area

Although you are in charge of the most demanding high-speed aspect of serving data centers, what do you perceive on Hirose's strengths in other fields of business?

**T.O.** In the Simulation Section, we also perform analysis of consumer equipment and automotive connectors, as well as connectors for data centers. We field requests for analysis one after another in line with the connector trends with respect to 5G in the consumer equipment market and CASE mobility in the automotive market. Whereas we are obviously subject to stringent requirements when it comes



We will contribute to device manufacturers by working in partnership with component manufacturers, drawing on our experience in data centers.



to high-speed technology applications for data centers, we must also contend with constraints with respect to connector size and specification requirements in individual industry segments. As such, given that we must strike a balance between such constraints and achieving high-speed data transmission, we are keenly aware of our need to amass knowledge specific to each of the industry segments.

I could say, one of Hirose's uniqueness is the wide range of work its engineers should perform. This calls for an appropriate mindset above and beyond mechanisms. Using analytical technology as an example, whereas an ordinary company consolidates analytics into an expertise team for specialization, in Hirose, connector engineers equipped with interest in analytical technology learn about such technologies and then perform analysis on their own after a while. I feel that those who are capable of mechanical design, learn also electric and electronic, and then design facilitate the creation of well-made connectors considering manufacturing. This is our corporate culture. We, the Simulation Section strives to widely convey knowledge by holding analysis workshops for engineers.



Finally, is there anything you would like to work on going forward by making the most of your experiences?

**T.O.** We have been talking about high-speed technology in telecommunications thus far. Given that electricity is prone to issues involving noise and transmission range, we anticipate further development of optical communications in certain domains going forward. Rather than optical communications completely replacing conventional means, I am imaging that the two are likely to coexist because optical signals are converted to electric signals somewhere along the connection channel. Hirose also has unique connectors equipped with microchips that convert electric and optical signals. Underpinned by knowledge gained by the Simulation Section, I hope to extend our range of new products and analytical technologies enlisting collaboration with our Optical Technology Division.



**T.T.** Along the lines of what we have been discussing, business in the domains of telecommunications and high-performance computing (HPC) is characterized by that electronic component manufacturers contribute to device manufacturers by working in partnership with. To such ends, we need to form partnerships that provide information based on mutual trust beyond knowledge of high-speed technology, and I believe I have amassed such experience. Meanwhile, we expect to move in a similar direction accompanying a shift to higher speeds in other fields such as the automotive domain, and we are actually encountering an increasing number of inquiries from automobile manufacturers seeking analysis of device circuit boards and mounted components. We would like to develop total analytical solutions encompassing other electronic components as well.

Connectors are electronic components that often constitute bottlenecks impeding high-speed data transmission. In other words, our technological evolution facilitates development of high-speed communications in society. On the basis of data centers which constitute the most demanding realm of high-speed communications, Hirose enlists the knowledge it has amassed in contributing to development of various devices encompassing data centers, base stations, and smartphones which are close at hand to everyone. We seek to realize a prosperous future and connected world through our high-speed technologies, which serve as key technologies, and our three business pillars.

# Initiatives Toward a Sustainable Environment

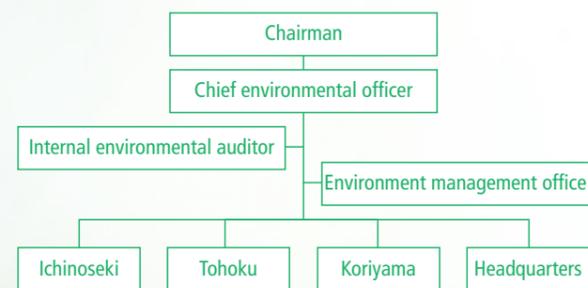


Having been incorporated into a myriad of electronics devices, connectors from Hirose have become an integral part of people's lives domestically and overseas. The Hirose Group considers preservation of the global environment to be one of the primary responsibilities of a corporation that manufactures products that are distributed worldwide. In seeking to help realize a sustainable future society, we have been taking steps to reduce emissions of environmentally hazardous substances in cooperation with our entire supply chain. We aim to increase our corporate value and for the Hirose Group to become the preferred choice among all of its stakeholders by rallying the collective knowledge of our customers and subcontractors worldwide while helping to address environmental challenges.

## Environmental management structure

The Hirose Group organized an Environmental Management Committee, chaired by the President of Hirose Electric, and built an environmental management system. The system spans four organizations: the groups within the Headquarters of Hirose Electric and the three plants of Ichinoseki, Tohoku, and Koriyama. We set environmental targets and engage in environmental management activities in accordance with the Hirose Electric Group's overall targets, which conform to our Basic Environmental Policy. Each month, we perform management review upon sharing information on managing progress toward achieving the environmental targets across the entire Group, and furthermore report such findings to management on a quarterly basis and receive instruction from management on how to make improvements.

### Environmental Management Committee



#### Environmental audit

The Hirose Group carries out an internal environmental audit to make sure that its environmental management system is working effectively and being properly maintained in accordance with ISO14001. To maintain and renew ISO14001 certification, we undergo periodic external reviews.

#### ISO14001 certifications

In fiscal 2002, the Hirose Group, including the three domestic plants, acquired an integrated certification. This demonstrates our commitment to environmental protection as the entire Group. All of our overseas plants have acquired ISO14001 certification.

## Initiatives toward environment: No inclusion, no mixing and no production of environmentally hazardous substances

The Hirose Group promotes initiatives to ensure no inclusion, no mixing, and no production of environmentally hazardous substances with respect to its products. We accordingly promote green procurement activities upon having formulated the Hirose Electric Group Green Procurement Guideline aiming to preferentially procure parts and materials that have a low impact on the environment. Moreover, we have completed efforts that entailed shifting to substitutions involving our main products and building a warranty system in alignment with the RoHS directive\*1 encompassing laws and regulations relating to chemical substances. We have also been meeting the compliance requirements on the list of substances of high concern (SVHC) associated with the REACH regulation\*2, and publicly disclosing information regarding chemicals used in our products, in response to customer requests. We consistently strive to develop environmentally friendly products, which involves establishing environment-related categories applicable to the design and development process and accordingly checking chemical substances used in connectors at the design phase. We have also established a watertight quality control system with regard to hazardous materials contained in products, such as by installing X-ray fluorescence spectrometers in our plants.

\*1 RoHS directive: This was promulgated on February 13, 2003 and enforced on July 1, 2006 in the European Union (EU). This directive restricts the use of ten specified toxic substances in electric and electronic products: lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyl (PBB), polybrominated diphenyl ether (PBDE), and four kinds of phthalate esters (DEHP, BBP, DBP, DIBP).

\*2 REACH regulation: Regulation concerning registration, evaluation, authorization and restriction of chemicals, promulgated on December 30, 2006 and enforced on June 12, 2007 in the European Union (EU). This regulation prohibits selling products that contain unregistered chemicals within the European Union. It also includes regulations governing the conduct of producers and importers, and the supplier's obligation to make relevant information public.

### Topic

#### Ichinoseki Plant: Management of hazardous substances in products

The Ichinoseki Plant has long been working to prevent harmful substances contained in its products from escaping in post-processing. In addition to the six substances previously regulated by the EU RoHS directive, we introduced new analytical equipment in fiscal 2018, allowing us to evaluate the four additional regulated phthalate esters in-house. Phthalate esters (phthalates) are difficult to determine if they are mixed with plastic, so we had to commission an organization that does analysis to evaluate them, but it took a very long time (about five days for the shortest delivery time). Therefore, in order to speed up the evaluation of new materials in new product development and the evaluation of alternatives to conventional products, we have established in-house phthalate ester analysis technology, which enables us to evaluate products in a short period of time.

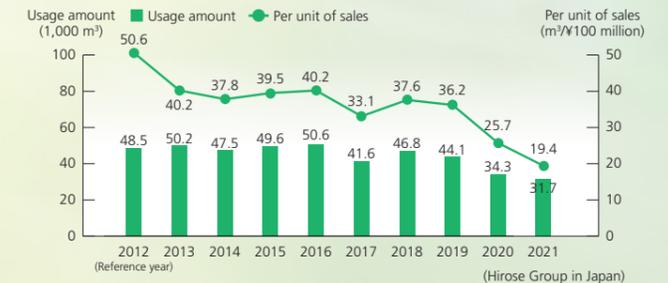
## Effective utilization of resources

We are committed to initiatives for recycling resources in production and logistics, making efficient use of water resources, promoting recycling, and reducing and reusing waste, premised on the notion that making efficient use of the Earth's finite resources constitutes a substantial corporate responsibility. Moreover, we have minimized connector sizes in our respective fields of business. By proposing use of small-sized connectors, we help our customers develop smaller products and enable them to achieve savings in use of resources.

### Effective utilization of resources 1: Reduce water consumption

Having set water consumption reduction targets, the Hirose Group accordingly works to conserve water used for day-to-day necessities while also reducing water consumption and recycling water when it comes to the amount of water that it uses in manufacturing processes. In fiscal 2021, we reduced water consumption by 61.71% against our reduction target of 8.65% (relative to use in the reference year of fiscal 2012).

### Water consumption

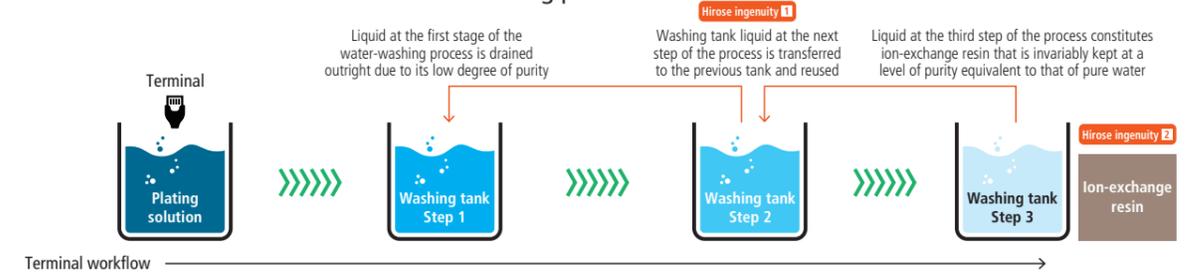


### Effective use of water in the plating and water-washing process

The plating process calls for multiple water washing cycles using multistage washing tanks to ensure that liquid chemicals and contaminants are not carried over into the next stage of the manufacturing process.

Whereas water is normally fed to such washing tanks on a continuous basis, this entails substantial use of water. As such, the Hirose Group has been taking steps to reduce water consumption through its own proprietary approach.

#### Scenario of three iterations of the water-washing process



#### Terminal workflow

\* The purity level of the initial washing tank is the lowest and the purity level of the third tank is the highest.

#### Hirose ingenuity 1: Multistage batch-type washing

Hirose employs a system that involves discharge of liquid solely from the first step of the process where the level of purity is the lowest, and for the second and third steps, the liquid from each step is reused in the preceding step.

We have reduced wastewater volume as a result of lowering water consumption to one-third that of previous levels by reusing some water rather than replacing the full volume of water.

#### Hirose ingenuity 2: Circulation processing using ion-exchange resin

Ion-exchange resin is placed in the final washing tank so that contaminants will be absorbed by the resin.

It is possible to effectively remove terminal contaminants enlisting a process whereby washing tank liquid is managed and recurrently used such that the purity level of liquid in the final washing tank is that of the level of pure water.

This approach has enabled us to achieve substantial results in terms of water conservation while maintaining quality.

Meanwhile, we have been working to reduce wasteful use of resources by ensuring optimal timing of water replacement and replenishment, enlisting sensors to manage and control plating tank water levels and plating concentrations in such tanks.

### Effective utilization of resources 2: Promotion of recycling

We have been seeking to promote recycling as a means of effectively using resources. To such ends, we consider options at the design stage for ensuring that our products are easy to disassemble under the assumption that they will be recycled when it comes time for their disposal, although it is difficult for the Hirose Group to recover connectors given that they are incorporated into customers' products and distributed across the market. In addition, we display details of materials used in and on our packaging materials to facilitate recycling of such materials. Since fiscal 2012, we have been contributing to the reduction of industrial waste through efficient recycling that involves thoroughly sorting and collecting scrap metal.

# A Workplace Where Employees Can Actively Work

## Human Rights

### Basic thoughts toward human rights

The Hirose Group believes that human rights are the foundation for achieving its objective of realizing environments in which diverse human capital can fully and actively work and for growing sustainably on a global scale. Based on this, we have made respect for human rights and individuals fundamental to every aspect of our business activities and we expressly forbid any discriminatory and inhumane behavior. In line with our corporate philosophy of “a small company connecting wisdom,” we have created new value through co-creation with a wide range of stakeholders. In order to realize this corporate philosophy, we recognize that it is essential to respect the human rights of all stakeholders, including not only those within the Hirose Group but also our customers and subcontractors in Japan and overseas. In fiscal 2012, we expressed our support for the UN Global Compact and we actively and consistently advance CSR activities that ensure the rights of all people involved in our business activities are respected, contribute to the development of a sustainable society, and enhance corporate value.

### Labor and corporate ethics management system

We have formed a team under the CSR and Risk Committee, which is chaired by the President, to establish and operate labor and corporate ethics management system.

<b>1</b>	<b>Policies</b> Enact, revise, review, implement and internally disseminate policies
	We engage in labor and corporate ethics management in line with the HRS Group Code of Conduct and have established the HRS Group Basic Policy on Labor Management and HRS Group Basic Policy for Corporate Ethics Management as guidelines for our activities. We have translated the Code of Conduct into the local language of each of our business locations and carry out activities to ensure employees are aware of it. Our Code of Conduct was developed in accordance with the Responsible Business Alliance (RBA) Code of Conduct, which was formulated based on major international human rights standards including the United Nation’s Guiding Principles on Business and Human Rights and the ILO Declaration on Fundamental Principles and Rights at Work.
	<ul style="list-style-type: none"> <li><b>HRS Group Basic Policy on Labor Management</b> We have established a basic policy on social responsibilities and working conditions to realize labor management that fundamentally respects human rights and individual dignity and that complies with the laws and regulations of each country and region.</li> <li><b>HRS Group Basic Policy for Corporate Ethics Management</b> We have established a basic policy for ensuring that our employees will comply with national and regional laws and regulations as well as international and in-house rules and they will act honestly in compliance with social norms and corporate ethics.</li> </ul>
<b>2</b>	<b>Management review</b> Review the sufficiency, propriety, and ongoing effectiveness of policy procedures and performance results
<b>3</b>	<b>Implementation and verification</b> Provide explanations and carry out awareness raising activities to ensure that all employees understand and can implement the policies Monitor on a continuous basis the efforts and results in order to verify the validity of the management system

In line with the management system, we use quarterly check sheets and conduct annual internal audits to ensure that policies, including our human rights policy, are being complied with, and lead to next actions. We also carry out regular human rights education to ensure that all Hirose Group employees understand and practice the policy. In particular, through e-learning on the Code of Conduct and on harassment regarding the prohibition of discriminatory action, which is provided annually in both Japanese and English in an easy-to-understand format that includes case studies, we strive to enlighten employees and raise their awareness of human rights.

### Human capital development

The Hirose Group positions “growth and invigoration of people” as the key to a sustainable growth. We continue to aim to be a company that evolves by “taking on challenges” and “actively working as hard as possible.” In order to continue to produce innovation even in a business environment with significant changes, we must maximize the skills of our diverse and excellent human capital and create an organization that supports innovation. We aim to realize our goal of “employees and the Company continue to take on challenges and grow together” by implementing human capital initiatives under the three themes of realizing growth of people and the organization, invigoration of the organization, and building the structure for them. We are actively investing in human capital development and the improvement of workplace environments based on the belief that investment in the happiness and growth of employees will lead to the growth of the company. We are working to realize a company where employees can actively work by supporting them to fully demonstrate their individuality and abilities and to think and act autonomously.



“Growth and invigoration of people” as the key to sustainable growth

**Key initiatives for realizing medium- to long-term growth**

- (1) Initiatives to support employee growth
- (2) Respect for diversity
- (3) Global human capital development
- (4) Occupational health and safety

#### Pursuing job satisfaction

If employees are to engage actively in their work, it is important that it is rewarding. One of the values of the HIROSE Philosophy is “a small company of smart people.” This involves raising productivity to maximize results so that we can achieve growth and satisfaction, leading to the mutual growth of individuals and organizations. Various projects have been organized across the company so that employees from different groups and departments work together in friendly competition. In addition to growing through communication with each other, they also participate by freely demonstrating their individual abilities and skills. The pursuit of job satisfaction leads not only to growth of employees, but also to organizational growth and enhanced corporate value. Additionally, we conduct regular employee invigoration surveys to visualize employee job satisfaction and burden, which we then reflect in measures aimed at further improving job satisfaction.

## Key initiative 1 Initiatives to Support Employee Growth

Based on the belief that the growth of employees leads to the growth of the organization, we have established an educational training system and we are working to develop human capital in a structured way. We provide a wide range of learning opportunities so that each employee can draw out their diverse talents and reach their full potential. After an employee has finished training, we provide in-depth follow-up support to supplement what they gained through the training and help them to grow.

#### Level-based education

We provide training programs for new employees, general employees, mid-career employees, and managers to enable the understanding and practice of required behaviors and roles at each level.

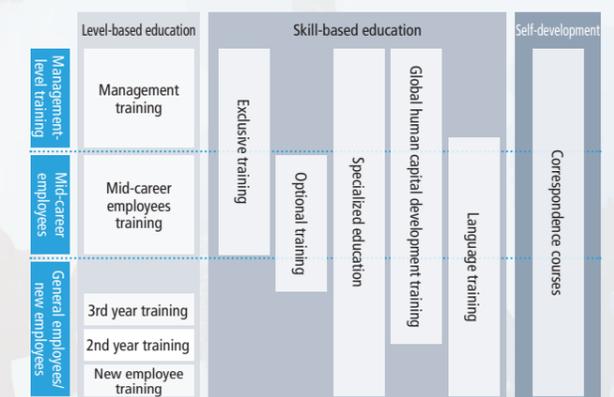
#### Skill-based education

Training programs such as manufacturing education and language training help employees to acquire and improve the specialized knowledge and skills required for their specific job and career map. Training content is updated in accordance with changes in the market environment.

#### Mentoring system

As part of the new employee training program, new employees receive one year of instruction from a mentor once they have been assigned to a department. The new employees receive daily feedback on the activities carried out that day with the aim of deepening relationships and fostering an environment in which it is easy to ask for advice. This also provides opportunities for both the new employee and their mentor to gain new insights and grow together.

#### Major educational training system



# A Workplace Where Employees Can Actively Work

## Key initiative 2 Respect for Diversity

The Hirose Group believes that the active participation of human capital with diverse backgrounds and perspectives will lead to the creation of new value, and we aim to be a company where diverse human capital can demonstrate their individuality and abilities in various divisions, regardless of gender, nationality, age, or race, and find fulfillment in their work. We carry out fair evaluations of each employee's abilities and achievements, and promote them to management positions or appoint to projects accordingly. Currently, diverse human capital, including women, mid-career hires, rehired employees, and locally recruited overseas employees, are participating actively as members of the core personnel supporting the Hirose Group.

### Examples of initiatives for promoting the participation of diverse employees

#### Engaging female employees

In order to become a company where women can demonstrate their abilities and participate actively with peace of mind, we are working to provide comfortable work environments that support the balancing of careers and family life. At the same time, we are facilitating the advancement of women in various settings as seen in the following measures for promoting participation.

For only Hirose Electric		2020	2021
Number of employees by gender	Male	706	690
	Female	229	227
Number of new graduates hired	Male	17	19
	Female	16	11

#### Plan for promoting the advancement of women

We are implementing initiatives in phases to promote the advancement of women.

##### Phase 1: Securing hiring ratios

**Target** Ensure that **at least 40%** of new graduate hires and **more than half** of general career-track hires are women (Hirose Electric Co., Ltd. only)

We are actively recruiting women in order to increase the number of female employees who can become leaders. To encourage recruitment, we provide opportunities for potential recruits to speak with various female employees who are active at Hirose and feature employee testimonials widely across on our recruitment website to show that it is possible to balance their career map and lifestyle after joining the Company.

##### Phase 2: Supporting employee growth

We are promoting equal work styles throughout the Company through means such as reviewing personnel systems, so that employees can reduce the uneven burden of housework and childcare based on gender while communicating each other. We are also increasing the number of female employees participating in various projects within the Company and supporting the growth of employees who can become core human capital in the future.

##### Phase 3: Systematic and selection-based training for executive management candidates

#### Engaging mid-career hires

With an eye on continued global growth, we are strengthening mid-career recruitment focused on expertise. Three directors, or approximately 38% of Hirose Electric's Board of Directors (excluding Outside Directors), were brought in from outside the Company, and they have utilized their outside perspectives to facilitate objective exchanges of opinions. In addition, more than 40 managers at Hirose Electric (about 34% of the total) are mid-career hires. Employees with diverse backgrounds and mindsets are making the most of their respective experiences to play an active role in the daily activities of the Company.

#### Engaging global talent

To strengthen our recruitment of global human capital, we regularly participate in career forums held overseas. We already employ a large number of non-Japanese employees. Non-Japanese employees often want to take long vacations at a different time to when they are generally taken in Japan, depending on their country of origin and other factors. By sharing the main long vacation periods of each country with the head of each department, we have planned operations in a way that shows consideration to the customs of employees' countries of origin.

### Work style reforms that respect diverse lifestyles

The Hirose Group has implemented a system for flexible work styles in order to create a comfortable workplace that respects employee lifestyles.

We are shortening working hours by setting no-overtime days, and reviewing number of paid vacation day entitlements in order to prevent employees from harming their health by working long hours and to enable them to lead more fulfilling lives. From April 2022, the number of paid vacation days granted to employees in their first year at the Company has been increased to 15 days to encourage employees to take more time off. Additionally, we strive to create an environment in which employees can stay with the Company as long as they want by preparing and ensuring awareness of leave options that correspond to changes in life stage, such as childcare leave and nursing care leave.

#### Enhancement of childcare leave

For supporting employees in balancing their careers with childcare, we have not only established systems that are stipulated by law, but also expanded and upgraded these systems to enable employees to work without overexerting themselves. As a result, fiscal 2021 was the third consecutive year in which 100% of employees finishing childcare leave returned to work. Regarding shortened work hours after childcare leave, the Group has extended the applicable age limit to until the end of the third year of elementary school. We also encourage male employees to participate in childcare. In addition to providing childcare leave, we have started introducing more flexible work arrangements, such as remote work and different working hours.

#### Introduction of remote work

We allow employees to work remotely for up to two days per week as a way to accommodate diverse lifestyles and increase productivity. As part of the "Iki-Iki" Project, which is an employee-driven initiative for transforming the Company, considerations regarding the implementation of remote work have been underway since fiscal 2018 with the aim of increasing employee motivation and creating an environment which enables employees in diverse positions to continue to work. When the COVID-19 pandemic spread, we had already completed in-house trials, allowing for a smooth transition to a remote work system on a Company-wide basis. Digital methods have also been adopted for large in-house meetings, leading to reduced traveling time and other benefits. We are working to maximize results while achieving balances between lifestyles, health, and work.

### Employee voices

Currently, remote work is well established as one of the ways we can work, but looking back to October 2019, when we were carrying out the remote work trial, no one could have predicted the future would turn out like this. The two main objectives of implementing this remote work trial by the Sales & Marketing Group's "Iki-Iki" Project were to increase the options of work styles in accordance with employees' lifestyle arrangements (such as childcare, nursing care, and long-distance commuting) for preventing people from quitting unwillingly, and to improve operational efficiency and maximize output. However, at the time, only an overwhelming minority of employees actually thought it was necessary for the Company to offer remote work. During the initial attempts, there were many people within the Company who were against remote work, and just as we were finishing the nine-month preparatory stage and finally about to implement the actual trial, March 2020 saw the outbreak of the COVID-19 pandemic which unexpectedly became the deciding factor in its introduction. The COVID-19 response was a succession of trial and error measures with no overarching direction, but the bugs detected in the trial had enabled us to visualize issues such as the need to digitalize paper processes, and this became the first step for the entire organization to overcome the critical changes in the environment. I feel that I have seen a valuable example of how respect for diversity has facilitated a response to environmental change. I would like to express my sincere gratitude to my colleagues in all the "Iki-Iki" Project groups for providing the creativity and wisdom that enabled us to keep moving forward no matter what happened.



C.N.  
Sales & Marketing Group  
"Iki-Iki" Project

#### What is the "Iki-Iki" Project?

The "Iki-Iki" Project was launched at Hirose Electric in fiscal 2018 as an initiative aimed at invigorating employees and organization. Based on the concept of "creating a workplace where yourself and your coworkers are happy," employees take the initiative in planning, proposing and implementing various initiatives centered on productivity, relationship quality, innovation, and diversity.

# A Workplace Where Employees Can Actively Work

## Key initiative 3 Global Human Capital Development

The Hirose Group now has bases in more than 10 countries around the world, and our business has expanded globally, with overseas sales accounting for 75% of total sales and overseas employees accounting for more than 70% of all employees. In line with this globalization, we are building human capital management frameworks on a global, coordinated basis. We have defined our shared global strengths and the strengths of each region, and are developing human capital systems through cooperation between headquarters and each business base. We are collaborating with each of our bases to build systems that can respond flexibly and quickly to changes in the business environment through securing and developing human capital who can participate on a global stage.

### Global human capital training

In order to realize continuous global growth in the coming era of great change, we need to transform into an organization that boasts diversity, and developing global human capital will be important to this. We are focusing on developing human capital who can be successful from a global perspective, regardless of whether they are in or outside Japan. As such, we are implementing global human capital training sessions. This training is held for young and mid-career employees from both Japan and overseas and teaches them the work styles and mindset required of global human capital.

### Passing on the Hirose Group's strengths and developing human capital at overseas businesses

The HIROSE Philosophy comprises a "fulcrum for reasoning" and "fulcrum for action" for the Hirose Group, providing one of Hirose's strengths and also a management foundation. Ensuring the HIROSE Philosophy is shared and practiced throughout the Hirose Group is essential to business expansion, and we are working to ensure it is understood and spread at our overseas bases by incorporating it into training programs at each site. The Philosophy Committee, established in fiscal 2022, has been holding discussions with overseas bases and advancing initiatives aimed at building a shared sense of purpose throughout the entire Group.

We are also working to improve the skills of employees at our overseas bases. A large number of trainees from each site are sent to Japan to learn the strengths and technologies of the Hirose Group so that they can play a central role when they return home. We also focus on training local engineers so that we can respond immediately to the needs of our customers around the world. We will continue working to provide career development opportunities and cultivate personnel so that diverse human capital demonstrate their capabilities in suitable positions around the world.

## Employee voices

The spread of COVID-19 in China made it impossible to hold training courses being implemented by a professional institution, so HIROSE China organized internal training for sales-manager-level employees. This training was conducted by our segment managers and branch managers (Japanese expatriates and the Chinese Deputy General Manager) with the purpose of developing our sales managers' comprehensive management and sales skills. The two-day program was inclusive of seven courses, "Win in Execution," "Basic Elements of Managers," "Prioritization Matrix," "Empowerment," "Design-in," "Sales by Utilizing Digital Tools," and "Factfulness." Eighteen sales managers from each branch of HIROSE China gathered at the Shenzhen office to participate in face-to-face courses and discussion. All participants got a good chance to learn HIROSE Philosophy, Hirose Japan's way of working, management theory from Japanese trainers, and the sharing of practical sales experience from local branch deputy general managers. After the training courses are completed, all participants are required to give a follow-up report to provide feedback of their knowledge gained and to describe how the content of their training can be used to improve their practical problem-solving skills in their daily work. HIROSE China will keep on collaborating with Hirose Japan and other sites to provide all employees with the appropriate training for realizing the continuous growth of the company in the future.



A.H.  
HIROSE China  
Human Resources Manager

## Key initiative 4 Occupational Health and Safety

### Occupational health and safety initiatives

We recognize that protecting the safety and health of employees is an important management issue for ensuring that each and every employee of the Hirose Group can engage actively in their work. Based on this, we have formulated the HRS Group Safety and Health Policy and are working together as a Group to create safe and comfortable work environments. We believe that to foster safe and comfortable work environments that enable each employee to fully demonstrate their abilities, it is important that all employees participate in occupational health and safety activities and for the Company and employees to work together. We ensure that employees understand the importance of occupational health and safety and practice it in their work by carrying out awareness raising activities, including regularly sharing occupational health and safety-related news and holding Safety Month and Occupational Health Promotion Month campaigns.

### Occupational health and safety promotion framework

We established the Occupational Health and Safety and Fire Prevention Team as a subordinate organization of the CSR and Risk Committee. It has been tasked with implementing occupational health and safety activities, including employee education and health management guidance. Comprising division leaders, primarily from manufacturing divisions, including plants, its safety activities include formulating and reviewing activity plans and enhancing equipment safety.

### Health and productivity management

The Hirose Group believes that people are the key to growth, so we are working to realize workplace environments where each employee can continue to participate actively while demonstrating their full potential. One way we are working to achieve this is by advancing activities for maintaining and enhancing employee health and raising health consciousness. We expect our investment in employee health to yield organizational invigoration, including increases in employee engagement and productivity, and to ultimately enhance business performance and corporate value. In fiscal 2022, we made a Health and Productivity Management Declaration to further strengthen existing efforts to maintain and promote employee health.

At the Hirose Electric Group, we believe that all of our employees being healthy in body and mind and energetically approaching their work leads to the continued growth and development of the company. We pledge that the employees, company, and health insurance association will come together to promote activities to maintain and improve health.

Kazunori Ishii President

### Initiatives for promoting mental and physical health among employees

We are implementing initiatives to promote health based on the belief that physical and mental health is the most important factor for enabling employees to work actively. In addition to providing regular health checkups and physical examinations, as well as following up on the results, in recent years we have been addressing mental health by conducting stress checks and establishing a framework for providing consultation, including from industrial physicians. We have also been carrying out workshops for managers, among other initiatives.

### Efforts addressing the COVID-19 pandemic

The Hirose Group has established a task force for tackling COVID-19 and is implementing various initiatives to ensure that business operations can continue while protecting the health and safety of employees. At business sites in Japan, the task force provides a central hub for managing the infection statuses of employees and communicating infection prevention measures in accordance with infection statuses, while also working to ensure standards for behavior and judgment are consistent through measures such as providing all employees with a handbook containing specific action guidelines in case of infection. We are also working to prevent the spread of infection globally through various measures, such as encouraging online meetings, enabling remote work, and distributing masks.

## BCP

Based on its policy of continuing or rapidly restoring its operations even after an unexpected interruption of its business, while putting the highest priority on the safety of human life, the Hirose Group has formulated a Business Continuity Plan (BCP). The BCP addresses risks such as a major earthquake or fire, or an infectious disease, and sets out concrete countermeasures.

### BCP initiatives

Hirose Group's BCP initiatives						
<b>Fiscal 2009</b> <ul style="list-style-type: none"> <li>Established the Business Continuity Plan</li> <li>Worked to disseminate and educate internally</li> </ul>	<b>Fiscal 2011</b> <ul style="list-style-type: none"> <li>Lessons learned from earthquake resulted in revisions to BCP, countermeasures headquarter functions, and methods for confirming personal safety</li> <li>Fiscal 2012: introduced personal safety confirmation system</li> </ul>	<b>Fiscal 2014</b> <ul style="list-style-type: none"> <li>BCP drawn up for 4 overseas factories</li> </ul>	<b>Fiscal 2015</b> <ul style="list-style-type: none"> <li>Implemented first-response training at Japanese locations for major disasters</li> </ul>	<b>Fiscal 2017</b> <ul style="list-style-type: none"> <li>Set up Disaster Countermeasures Task Force at the Headquarters and implemented first-response training</li> </ul>	<b>Fiscal 2019</b> <ul style="list-style-type: none"> <li>Major revisions to BCP</li> <li>Fiscal 2019 onward: implemented training for measures aimed at product supply during emergencies</li> </ul>	<b>Fiscal 2021</b> <ul style="list-style-type: none"> <li>Drew up Policy on Product Supply During Emergencies</li> </ul>
Putting BCP into practice						
	<b>2011/3</b> <ul style="list-style-type: none"> <li>Put BCP into practice in response to damage from Great East Japan Earthquake</li> </ul>				<b>2019/10</b> <ul style="list-style-type: none"> <li>Put BCP into practice in response to flood damage at Koriyama factory</li> </ul>	<b>2020/2-</b> <ul style="list-style-type: none"> <li>COVID-19 countermeasures implemented</li> </ul>
Joint initiatives with subcontractors						
	<b>Fiscal 2013</b> <ul style="list-style-type: none"> <li>Implemented BCP questionnaire survey for subcontractors</li> </ul>	<b>Fiscal 2014</b> <ul style="list-style-type: none"> <li>Introduced personal safety confirmation system at subcontractors</li> </ul>	<b>Fiscal 2015</b> <ul style="list-style-type: none"> <li>Conducted briefings to support subcontractors developing BCPs</li> <li>Continued support for developing BCPs</li> </ul>		<b>Fiscal 2019</b> <ul style="list-style-type: none"> <li>Implemented first-response training at factories predicated on damage to subcontractors, which has been repeated every year since</li> </ul>	<b>Fiscal 2020</b> <ul style="list-style-type: none"> <li>Added flooding to checklist for subcontractors</li> <li>Fiscal 2020 onward: periodic checks on status of subcontractor initiatives</li> </ul>

### Business continuity management (BCM)

We hypothesize disasters and emergency situations that could impact the environment, and in the Basic Documents on Business Continuity Management we document countermeasures and procedures to address emerging risks. The basic policy set out in these Documents in response to unexpected events is to (1) secure the safety of employees and their families, (2) maintain supply to customers, and (3) minimize damage by rapidly restoring operations. To enable employees to act appropriately in times of emergency, we carry out regular first-response training for major disasters, and also conduct training in the use of the personal safety confirmation system. At factories, we strive to confirm the effectiveness of the procedures and raise awareness among those in positions of responsibility by implementing first-response training for emergency, as well as training based on simulations that assume damage to the factory and suspension of supply from subcontractors. In addition, based on the experience obtained from devising countermeasures for COVID-19, we have drawn up a Policy on Product Supply During Emergencies, and are working on initiatives such as separating the place of production from the place where inventories are stored, and diversifying procurement of raw materials. We are promoting and strengthening BCM in order to fulfill our responsibility to supply in an environment where emergency situations are occurring more frequently.

### Rolling out BCP across the entire supply chain

Based on our belief that it is important to conduct BCP in cooperation with companies in the supply chain, we are working to achieve business continuity across the entire supply chain by checking subcontractor systems for developing BCPs, and providing ongoing support for the same. We ask subcontractors to predict the effects of hypothetical events such as infectious diseases or major disasters, and to draw up countermeasures in advance. The floods that occurred in Koriyama in fiscal 2019 inflicted damage on the Koriyama factory and many subcontractors. Based on this experience, we have prepared for various risks by strengthening flood countermeasures and emergency training in our checklists for subcontractors.

## Responsible Procurement

In order to build robust partnerships with subcontractors and perform corporate operations together, the Hirose Group has clarified its purchasing policy in the Purchase Management Rules, on which it bases the conduct of its purchasing activities. While building relationships of trust and cooperation with subcontractors, which are important partners, we are striving to achieve responsible and sustainable procurement.

### CSR procurement initiatives

The Hirose Group has formed the Hirose's Production System, under which its own factories cooperate with the subcontractors to which it outsources production to perform manufacturing. It is also working with these subcontractors to achieve sustainable procurement. In order to fulfill social responsibilities across the entire supply chain, we ask subcontractors to put in place systems for fair trade and ethics, human rights and labor, occupational safety, environmental protection, information control, and other items. Our main subcontractors have been shown the HRS Group Code of Conduct, and have agreed to comply with it. The HRS Group Code of Conduct was created in conformity with the code of conduct of the Responsible Business Alliance (RBA), and we also ask subcontractors to carry out their CSR activities in alignment with the RBA Code of Conduct.

### Green procurement activities

The Company has drawn up the Hirose Electric Group Green Procurement Guideline, in accordance with which it works to prioritize the procurement of parts, materials, and raw materials that have low environmental impacts. In recognition of the fact that, in order to comply with relevant laws and regulations, it is essential to manage chemical substances from raw materials to finished product and to obtain the cooperation of the entire supply chain, we ask subcontractors to comply with this Guideline. The Guideline clarifies our requests to subcontractors, and summarizes prohibited substances and controlled substances. In addition to making the Guideline available on the website, we distribute it to subcontractors in each country. We have asked our subcontractors to establish their own environmental management systems, comply with laws and regulations, reinforce quality control of chemical substances contained in products, and submit information including data on such chemicals, in accordance with the Guideline. We have set management of the most recent version of the Guideline as a CSR target for subcontractors, and have confirmed that more than 97% have updated to the most recent version. Going forward, we will continue to promote green procurement activities in cooperation with the entire supply chain.

### Communication with subcontractors

Our partnerships with subcontractors are indispensable for the promotion of CSR procurement. In addition to conducting regular CSR surveys, we are working to strengthen these relationships. We have rolled out CSR item check sheets, implemented audits and confirmation visits as required, and are in close communication with subcontractors to promote cooperation for further improvements. To enable subcontractors to report or consult us about compliance problems related to transactions with the Hirose Group, we provide them with contact details for the Group's internal report system. To promote its use, we regularly disseminate information on the system, and combine our efforts to achieve compliance with the code of conduct.

As the supply chain has become increasingly complex, the influence of subcontractors has also increased. Because information security and quality problems at subcontractors can also affect Hirose Group production, it is important to strengthen cooperation further and to take an integrated approach to CSR. By proactively engaging in day-to-day communication with subcontractors, we work to keep in step with our partners as we promote CSR procurement across the entire supply chain.

### Addressing the issue of conflict minerals

As part of our efforts to fulfill social responsibilities in the supply chain, we are taking steps to procure minerals that do not contribute to conflicts or to human rights and labor problems, and have established the HRS Group Responsible Minerals Procurement Policy as a code of conduct. We have asked subcontractors for their understanding in relation to Hirose Group initiatives, as well as asking them to investigate the routes by which minerals are procured, and also to procure minerals from smelters that are certified under trustworthy international frameworks, such as the Responsible Minerals Initiative (RMI). We are working on developing a grasp of the status of procurement across the entire supply chain, as well as on avoiding the use of conflict minerals.

### Activities

1. We establish management system of minerals procurement that complies with OECD Due Diligence Guidance.
2. We promote "Responsible Minerals Procurement" throughout the supply chain in collaboration.
3. We identify and evaluate supply-chain risks by using globally standardized programs such as the latest CMRT.
4. When problematic mineral procurement is found, we immediately take corrective action.
5. We disclose results of mineral procurement survey upon customers' request.

# Corporate Governance

## Our basic idea of corporate governance

We, the Hirose Group, recognize the reinforcement and enhancement of corporate governance as our most important business challenge for the sake of the maintenance and improvement of our long-term competitive power in the global market. Based on our corporate philosophy, we will also promote efficient business administration as well as fulfill our social responsibilities toward stakeholders, and try to increase our corporate value in order to establish structures that are more profitable. We will address this based on the following basic views.

- (1) We will respect the rights of shareholders and ensure their equality.
- (2) We will strive for appropriate cooperation with all stakeholders, including shareholders, customers, suppliers, employees, and local communities.
- (3) We will ensure transparency through appropriate disclosure of corporate information.
- (4) The Board of Directors will provide major direction for corporate strategy, etc., create an environment that supports risk-taking by senior management, and provide highly effective supervision over business execution from an independent and objective standpoint.
- (5) We will engage in constructive dialogue with shareholders in order to achieve sustainable growth and increase corporate value over the medium to long term.

## Evolution of corporate governance structure



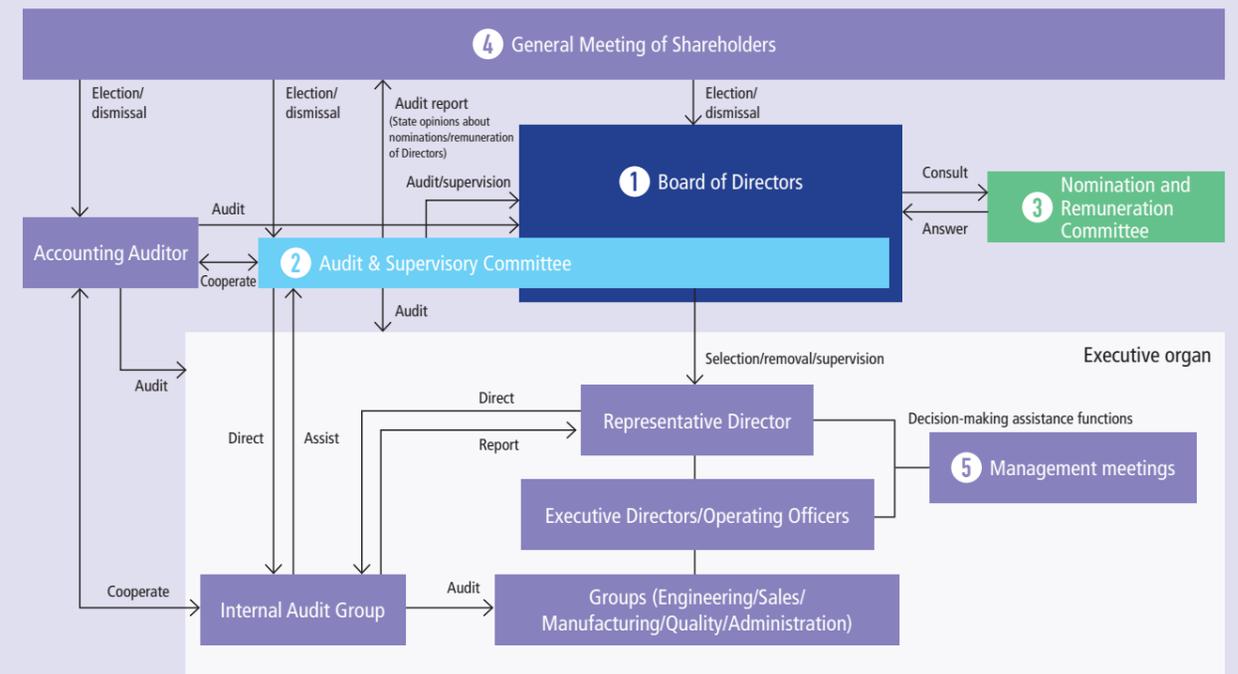
## Changes in composition of Outside Directors



Number of officers (FY)	2004	2010	2015	2016	2017	2018	2019	2020	2021
Total number of Directors	7	10	8	8	8	9	9	9	13
Outside Directors	1	1	1	1	2	2	2	3	5
Total number of Audit & Supervisory Board Members	3	4	4	4	4	4	3	3	X
Outside Audit & Supervisory Board Members	2	3	3	3	3	3	2	2	X

## Corporate governance structure

### Governance structure (approved in June 2022 General Meeting of Shareholders)



Name of meeting	Functions/content	Composition	Number of meetings held in FY2021
(1) Board of Directors	The Board of Directors supervises the status of business execution by each Director and checks on management functions. The Board of Directors deliberates courses of action taken by management, and ensures the appropriateness of management decisions from a variety of perspectives. The Board of Directors reports on the medium-term business plans of each department. Deliberations take place about medium-term company initiatives while receiving advice from Outside Directors.	Five Outside Directors Eight Inside Directors	13 times
(2) Audit & Supervisory Committee	In principle, the Audit & Supervisory Committee holds meetings once a month. Each Audit & Supervisory Committee Member grasps the status of operation of management execution, internal controls, compliance, internal audits, and internal regulations based on the audit policy and the audit plan, which were enacted by the Audit & Supervisory Committee at the beginning of the fiscal year. Members perform audits while focusing on the effectiveness of each mechanism.	Two Outside Directors One Inside Director	9 times * Of which 1 was a meeting of the Audit & Supervisory Board
(3) Nomination and Remuneration Committee	We established the Nomination and Remuneration Committee, the majority of whose members are Independent Outside Directors, and appoint an Independent Outside Director as Committee Chair to further enhance its objectivity and transparency. Issues such as the involvement of the Board of Directors in succession planning for the CEO, and the approach to determining remuneration based on the remuneration policy are considered by the Committee in advance, so that sufficient discussions are conducted before the Board of Directors meets.	Three Outside Directors Two Inside Directors	5 times
(4) General Meeting of Shareholders	We regard the General Meeting of Shareholders as a valuable opportunity for dialogue with shareholders, and promote initiatives to invigorate shareholder meetings and to facilitate the exercise of voting rights. In order to further deepen shareholder understanding of Hirose's business and of the proposals, we are promoting the use of visual materials during the operation of the General Meeting of Shareholders, and strives to prepare easily understood business reports.		
(5) Management meetings	Management meetings are held for discussions and decision-making on our direction over the medium to long term, formulation and execution of business strategy, new businesses, and other matters. Attendance at such meetings consists mainly of Operating Officers and those of higher rank, with members engaging in wide-ranging discussions concerning the management of the Hirose Group, and it is based on these discussions that strategy is decided. The delegation of broad authority to management meetings is aimed at speeding up execution of business.		

# Corporate Governance

## Directors (excluding Directors who are Audit & Supervisory Committee Members)



**President**  
**Kazunori Ishii**

Attendance at Board of Directors meetings in FY2021 13/13

- April 1982: Joined the Company
- July 2007: Deputy Group President-Engineering of the Company
- November 2008: Deputy Group President-Sales & Marketing of the Company
- June 2009: Operating Officer of the Company
- November 2009: Acting Group President-Sales & Marketing of the Company
- June 2010: Director of the Company
- General Manager-Corporate Innovation Office
- June 2011: Senior Managing Director of the Company
- Group President-Sales & Marketing of the Company; concurrently General Manager-Corporate Innovation Office
- June 2012: President and Representative Director of the Company (current position)



**Senior Managing Director**  
**Mitsuo Nakamura**

Attendance at Board of Directors meetings in FY2021 13/13

- April 1980: Joined the Company
- July 2007: Deputy Group President-Engineering of the Company
- June 2009: Operating Officer of the Company
- June 2010: Director of the Company
- Deputy Group President-Engineering of the Company
- June 2013: Group President-Engineering of the Company
- June 2015: Managing Director of the Company
- June 2016: Group President-Engineering of the Company; concurrently responsible for Production Group
- June 2019: Senior Managing Director of the Company (current position)
- June 2022: Group President-Engineering of the Company (current position)



**Director**  
**Yukio Kiriya**

Attendance at Board of Directors meetings in FY2021 13/13

- April 1982: Joined the Company
- April 2013: Deputy Group President-Production of the Company
- June 2015: Operating Officer of the Company
- November 2015: Acting Group President-Production of the Company
- April 2016: Acting Group President-Production of the Company; concurrently responsible for Quality Assurance Department
- June 2016: Director of the Company (current position)
- Group President-Production of the Company; concurrently responsible for Quality Assurance Department
- October 2017: Group President-Production of the Company (current position)



**Director**  
**Hiroshi Satoh**

Attendance at Board of Directors meetings in FY2021 13/13

- April 1993: Joined MITSUI & CO., LTD.
- July 2001: Joined KEYENCE CORPORATION
- February 2017: Joined the Company
- April 2018: Division General Manager-International Business Division-Sales & Marketing of the Company
- June 2019: Director of the Company (current position)
- Group President-Sales & Marketing of the Company; concurrently Division General Manager-International Business Division
- April 2020: Group President-Sales & Marketing of the Company (current position)



**Director**  
**Shin Kamagata**

Attendance at Board of Directors meetings in FY2021 11/11

- April 1990: Joined NTT DATA Corporation
- February 2002: Joined the Company
- June 2002: Manager-Overall Business Innovation Office-Administration of the Company
- July 2008: Manager-IT General Administration Office-Administration of the Company
- February 2019: General Manager-Corporate Planning Department-Administration of the Company; concurrently General Manager-IT General Administration Department
- June 2019: Operating Officer of the Company
- June 2020: Deputy Group President-Administration of the Company; concurrently General Manager-Corporate Planning Department and General Manager-IT General Administration Department
- June 2021: Director of the Company (current position)
- Group President-Administration of the Company (current position)



**Director**  
**Jun Inasaka**

Attendance at Board of Directors meetings in FY2021 11/11

- April 1985: Joined NEC Corporation
- April 2014: Chief Technology Manager of IT Platform Business Division Department of NEC Corporation
- February 2016: Joined the Company
- January 2017: Division General Manager-SB Division-Engineering of the Company
- June 2019: Operating Officer of the Company
- October 2020: Deputy Group President-Engineering of the Company; concurrently Division General Manager-SB Division
- June 2021: Director of the Company (current position)
- June 2022: Deputy Group President-Engineering of the Company (current position)



**Director**  
**Sang-Yeob Lee**

Attendance at Board of Directors meetings in FY2021 12/13

- January 1984: Joined Hanwha Corporation / Explosives
- March 1989: Joined HIROSE KOREA CO., LTD.
- July 2007: Chairman of WEIHAI HIROSE KOREA ELECTRIC CO., LTD. (current position)
- August 2007: Representative Director, the Employee Welfare Fund of HIROSE KOREA CO., LTD. (current position)
- June 2010: Executive Vice President and Representative Director of HIROSE KOREA CO., LTD.
- November 2011: President and Representative Director of HIROSE KOREA CO., LTD. (current position)
- June 2018: Director of the Company (current position)



**Director**  
**Kensuke Hotta**

Attendance at Board of Directors meetings in FY2021 13/13

- April 1962: Joined The Sumitomo Bank, Limited (currently Sumitomo Mitsui Banking Corporation)
- June 1987: Director of The Sumitomo Bank, Limited
- June 1997: Representative Director and Executive Vice President of The Sumitomo Bank, Limited
- January 2001: Chairman of Morgan Stanley Japan Limited (currently Morgan Stanley MUFG Securities Co., Ltd.)
- October 2007: Chairman and Representative Director of Hotta Sogo Jimusho K.K. (current position)
- June 2011: Outside Director of the Company (current position)
- June 2018: Outside Director of SEIREN CO., LTD. (current position)



**Director**  
**Tetsuji Motonaga**

Attendance at Board of Directors meetings in FY2021 13/13

- April 1985: Joined Nippon Yusen Kabushiki Kaisha (NYK LINE)
- January 1997: Joined Boston Consulting Group
- April 2003: Joined Jomon Associates Inc.
- August 2006: Established Ichthys Co., Ltd. Representative Director (current position)
- April 2015: Auditor of Keisei Medical Corporation (current position)
- October 2015: Board Chair of Japan Family Business Institute (current position)
- June 2017: Outside Director of the Company (current position)



**Director**  
**Masanori Nishimatsu**

Attendance at Board of Directors meetings in FY2021 13/13

- April 1980: Joined Nomura Securities Co., Ltd.
- April 2003: Director of Nomura Securities Co., Ltd.
- June 2003: Executive Officer of Nomura Securities Co., Ltd.
- April 2007: Managing Executive Officer of Nomura Securities Co., Ltd.
- June 2010: Director of Nomura Holdings, Inc.
- June 2013: Director of Nomura Securities Co., Ltd.
- April 2015: Representative Director and President of Nomura Land and Building Co., Ltd.
- June 2020: Outside Director of the Company (current position)

## Directors who are Audit & Supervisory Committee Members



**Director (Standing Audit & Supervisory Committee Member)**  
**Yoshikazu Chiba**

Attendance at Board of Directors meetings in FY2021 13/13

Attendance at Audit & Supervisory Committee meetings in FY2021 9/9

\* Of which 1 was a meeting of the Audit & Supervisory Board

- April 1978: Joined the Company
- December 2006: General Manager-Secretary Office of the Company
- May 2014: Deputy Advisor to the President of the Company
- June 2014: (Standing) Audit & Supervisory Board Member of the Company
- June 2021: Director (Standing Audit & Supervisory Committee Member) of the Company (current position)



**Director (Audit & Supervisory Committee Member)**  
**Terukazu Sugishima**

Attendance at Board of Directors meetings in FY2021 13/13

Attendance at Audit & Supervisory Committee meetings in FY2021 9/9

\* Of which 1 was a meeting of the Audit & Supervisory Board

- March 1979: Registered as certified public accountant
- June 1979: Registered as tax accountant
- April 1985: Established Sugishima Certified Public Accountant Office (current position)
- June 2007: Outside Audit & Supervisory Board Member of Starzen Co., Ltd.
- June 2008: Outside Audit & Supervisory Board Member of the Company
- June 2015: Outside Audit & Supervisory Board Member of Chuetsu Pulp & Paper Co., Ltd.
- June 2016: Outside Director of Chuetsu Pulp & Paper Co., Ltd.
- June 2021: Outside Director (Audit & Supervisory Committee Member) of the Company (current position)



**Director (Audit & Supervisory Committee Member)**  
**Kentaro Miura**

Attendance at Board of Directors meetings in FY2021 13/13

Attendance at Audit & Supervisory Committee meetings in FY2021 9/9

\* Of which 1 was a meeting of the Audit & Supervisory Board

- June 1995: Audit & Supervisory Board Member of T.P.S. Laboratory Co., Ltd. (current position)
- June 2014: Outside Audit & Supervisory Board Member of the Company
- June 2021: Outside Director (Audit & Supervisory Committee Member) of the Company (current position)

## Skill Matrix

Name	Corporate Management	Global Management	Technology Development/ Manufacturing/ Quality	Sales/ Marketing	Finance/ Accounting	Legal/ Compliance/ Risk	Organization/ Human Capital Management	Sustainability (ESG)
Kazunori Ishii	●	●	●	●		●	●	●
Mitsuo Nakamura		●	●					●
Yukio Kiriya		●	●					●
Hiroshi Satoh		●		●				●
Shin Kamagata					●	●	●	●
Jun Inasaka			●					●
Sang-Yeob Lee	●		●	●		●	●	●
Kensuke Hotta	●	●		●	●		●	●
Tetsuji Motonaga	●	●		●			●	●
Masanori Nishimatsu	●	●		●	●		●	●
Yoshikazu Chiba					●	●	●	●
Terukazu Sugishima	●				●	●	●	●
Kentaro Miura			●		●	●	●	●

# Corporate Governance

## Board of Directors, Audit & Supervisory Committee, Nomination and Remuneration Committee

			Board of Directors	Audit & Supervisory Committee	Nomination and Remuneration Committee
Directors	President	Kazunori Ishii	●		●
	Senior Managing Director	Mitsuo Nakamura	●		
	Director	Yukio Kiriya	●		
	Director	Hiroshi Satoh	●		
	Director	Shin Kamagata	●		
	Director	Jun Inasaka	●		
	Director	Sang-Yeob Lee	●		
	Director	 Kensuke Hotta	●		●
	Director	 Tetsuji Motonaga	●		●
	Director	 Masanori Nishimatsu	●		●
Directors who are Audit & Supervisory Committee Members	Director	Yoshikazu Chiba	●	●	●
	Director	 Terukazu Sugishima	●	●	
	Director	 Kentaro Miura	●	●	

### Ratio of Outside Directors



The Board of Directors of Hirose Electric is comprised of 13 Directors, an appropriate number to conduct swift decision-making. Meetings are held at least once per month. The Articles of Incorporation limit the number of Directors (excluding Directors who are Audit & Supervisory Committee Members) to 10 or fewer persons. Based on this, we strive to maintain an appropriate scale. The Board of Directors includes five Independent Outside Directors to execute management supervision from an objective perspective. Outside Directors provide helpful advice from a multifaceted perspective with a diverse background as CPAs and managers of other companies. This secures the appropriateness of management decisions.

### Main matters deliberated by the Board of Directors

<ul style="list-style-type: none"> <li>Strengthening of corporate governance structure</li> </ul>	Transition to a company with Audit & Supervisory Committee, evaluation of the effectiveness of the Board of Directors, compliance with the revised Corporate Governance Code, creation of skill matrix for Directors
<ul style="list-style-type: none"> <li>Increasing shareholder value</li> </ul>	Introduction of performance-linked share-based remuneration plan, disposal of treasury stock, changes to shareholder returns policy
<ul style="list-style-type: none"> <li>Medium- and long-term growth strategy</li> </ul>	Medium-Term Business Plan, Sustainability Promotion Project, construction of new Koriyama factory, expansion of the Hirose Korea Precision Connector Center, progress reports on research and development, introduction of new personnel system, carbon neutrality, passing down of HIROSE Philosophy

## Evaluation of effectiveness of the Board of Directors

We perform an evaluation of effectiveness of the Board of Directors once a year for all Directors for the purpose of improving the function and effectiveness of the Board of Directors. The results of the evaluation are reviewed and future initiatives are discussed by the Board of Directors as part of efforts to raise the level of dialogue.



## Audit & Supervisory Committee

In fiscal 2021, Hirose Electric established the Audit & Supervisory Committee, a majority of which is comprised of Outside Directors. This further enhances corporate governance through the strengthening of the supervisory function of the Board of Directors and the strengthening of the audit and supervisory functions for the legality and appropriateness of business execution by granting voting rights in the Board of Directors to Directors who are Audit & Supervisory Committee Members. By actively exchanging information between internal departments, the Accounting Auditor, and Directors, and remaining in close communication, the Audit & Supervisory Committee is working to provide effective supervision.

## Nomination and Remuneration Committee

In order to strengthen the fairness, transparency, and objectivity of procedures related to Director nomination and remuneration, the Company has established the Nomination and Remuneration Committee as a voluntary advising body for the Board of Directors. Decisions pertaining to the selection, dismissal, and remuneration of Directors shall be deliberated and determined by the Board of Directors in accordance with standards and policies, after a draft proposal has been submitted to the Nomination and Remuneration Committee and its report has been received. The Committee investigates revisions to the Regulations for Remuneration of Directors and other matters, checks remuneration amounts, and reports its findings to the Board of Directors.

# Corporate Governance

## Board of Directors discussions



Kensuke Hotta Outside Director



Tetsuji Motonaga Outside Director



Masanori Nishimatsu Outside Director

### Agenda 1 Construction of new Koriyama factory

**Nishimatsu** We have been told that the new Koriyama factory will also be a plant for encouraging the shift to carbon neutrality, but can it use 100% renewable energy?

**Kiriya** We will quantify CO<sub>2</sub> emissions, and in preparation for reducing them, promote the use of solar power generation. Our efforts in CO<sub>2</sub> reduction are not only on the operation of the factory itself but also on purchases of raw materials.

**Miura** Many companies are working to address the issue of CO<sub>2</sub> emission. Particularly if this is going to be the mainstay factory for automotive applications, in addition to establishing BCP I would like to see steps taken to ensure that CO<sub>2</sub> emissions at the plant can be thoroughly measured.

**Hotta** This is a factory built around a new concept, and I think it is very positive that CO<sub>2</sub> emissions have been given full consideration alongside ease of maintenance. I think it is important that we widely communicate our approach to resolving social issues. Rather than using this plant only as a production site, by establishing facilities that create new value, creating a space that facilitates increased contact with society, and linking these to local communities, we can increase corporate value while at the same time making a contribution to society. In my view, we should be considering how we can use this new factory to communicate our "invisible value" to the world.

**Motonaga** From the perspective of addressing BCP, in the event of a natural disaster in the Tohoku region, it seems that this new Koriyama factory would play a central role. I would like to see this idea investigated carefully, including installing functions for communicating with headquarters and other operational aspects of disaster prevention.

**Ishii** Consideration of the operational aspects of the factory, which includes addressing the SDGs and other matters, would move forward as an issue separate from the hardware aspects. When building the headquarters, you advised us to emphasize "quality first" and "maintenance free" and other concepts, and we are also leveraging these for the construction of the new factory. I hope you will continue to share such suggestions, which we will explore going forward.

#### Actions to implement

- Set new reduction targets for own business sites (Scope 1, 2)
- Incorporate facilities aligned with these reduction targets into construction planning  
(Scheduled to begin operation in fiscal 2024)

### Agenda 2 Sustainability initiatives

**Kamagata** In terms of the Sustainability Promotion Project, we are working to draw up sustainability recommendations with a focus on the future of the Company, and these efforts are being driven primarily by younger managers. These concrete policies and initiatives will open the way to the next phase, and we will update them on a yearly basis.

**Ishii** We need to think as a company about the specifics of SDG initiatives. We must consider the situation 10 years or 20 years from now, and we assigned the task of investigating how we should make a contribution to sustainability to the younger generation who will be responsible for the future of Hirose. We will roll out the results in the form of company-wide activities.

**Motonaga** My understanding is that, because it would be difficult to engage in an extensive range of initiatives, items that are of particular importance to Hirose will be prioritized. One question that will be asked is how Hirose intends to approach diversity initiatives going forward. I suspect that proposals for initiatives will vary depending on the generation of the employee, so Hirose must be sure to absorb the opinions of younger team members. For example, the attitude to work-life balance varies by age. When promoting the SDGs, it is important to confirm and consider differences in approach by generation and gender, so this is something I hope Hirose will also look at.

**Hotta** In the world transitioning to a social capitalism that emphasizes the links with society, the most essential thing would be a change in the awareness of top management. There are concerns that even when younger employees generate ideas, if the members of the Board of Directors do not take them seriously then there is a risk that the initiative will end at the proposal stage. I feel that changing the awareness of each and every employee is an extremely difficult matter. Initiatives, including education, need to be implemented to establish the awareness of those issues in all employees. Leadership from top management will be an important factor in changing the approach to dealing with society, which is the ultimate stakeholder of the Company.

**Satoh** I believe that we have not sufficiently clarified the Company's reason for existence as an instrument for the benefit of society, built on the foundation of the HIROSE Philosophy. Through this project, we are working to create an environment that helps enhance this awareness inside the Company, while boosting our appeal to those outside.

#### Actions to implement

- Instruct those responsible to extract opinions from multiple generations of employees
- Management to communicate proactively, beginning with the President

## Enhancing the effectiveness of the Board of Directors

We believe that enabling Outside Directors to fulfill their responsibilities from an independent standpoint is an important challenge for management of the Hirose Group. By encouraging free, wide-ranging, and constructive discussions between Outside and Inside Directors, we seek to invigorate the Board of Directors and to enhance effectiveness.

### Sharing of information with Outside Directors

In order to enhance the content of Board of Directors discussions, we distribute materials to Outside Directors before Board of Directors meetings are held, thus ensuring that they have time to develop a full understanding of the details of and background to items on the agenda. In addition to matters to be resolved by the Board of Directors, at least once a year we also share reports and other important matters prepared by the general managers of the various business divisions. This makes it possible not only for the Outside Directors to grasp the reality of the situation on the front line and use that understanding in resolutions that affect management decisions, but also for us to receive advice from them. Besides, newly appointed Outside Directors are given opportunities to tour the headquarters and plants in order to gain an understanding of the Hirose Group.

### Initiatives to deepen Outside Directors' understanding of the Hirose Group

Based on our perception that deepening the understanding of the Hirose Group is an important part of constructive discussions, we implement periodic tours of the factories of the Hirose Group and affiliated companies. By having Outside Directors inspect actual production sites, we help them to check the performance of factories and to deepen their knowledge of the Hirose Group as a whole. We also implement briefing sessions with employees of our overseas sales companies. Through dialogue with local managers about the current and future state of the overseas business, which accounts for 70% of Hirose Group sales, Outside Directors are able to deepen their understanding in ways that will be useful in forming their future advice.

## Independence criteria and character requirements for Independent Outside Directors

Hirose Electric selects Independent Outside Directors who satisfy the requirements of Independent Officer as stipulated by financial instruments exchanges and possess track records and relevant knowledge in their respective fields. More specifically, if an Outside Director does not fall under any of the following cases, the Outside Director is determined as having independence.

- In the case where the Outside Director is currently serving, or has once served during the past ten years, as an executive of the Company or any of its subsidiaries
- In the case where the Outside Director is currently serving as an executive of a company with which the Group engages in transactions, and the amount of the transactions exceeds 2% of consolidated net sales of any fiscal year among the last three fiscal years
- In the case where the Outside Director receives, as a legal or accounting expert or consultant, remuneration (excluding remuneration paid as a Director of the Company and remuneration paid to the organization or firm to which the Outside Director belongs) exceeding the average annual amount of ¥10 million directly from the Company during the last three fiscal years
- In the case where the Outside Director belongs to an organization such as corporation (which includes law firm, audit corporation, tax accountant corporation and consulting firm) and association, and remuneration received from the Company exceeds the higher of either 2% or more of the average annual amount of gross sales of the said organization such as corporation or association in the last three fiscal years or ¥100 million or more
- In the case where the Outside Director is currently an employee, etc., of an audit corporation that is the Accounting Auditor of the Company or any of its subsidiaries
- In the case where the Outside Director has once engaged in auditing operations for the Company or any of its subsidiaries as an employee, etc., of an audit corporation that is the Accounting Auditor of the Company or any of its subsidiaries during the last three years
- In the case where a relative within the second degree of consanguinity of the Outside Director is currently serving, or has once served in the past, as an Executive of the Company or any of its subsidiaries

# Corporate Governance

## Remuneration structure linked to medium- to long-term corporate value

### Basic policy

As an incentive to continuously improve corporate value, the remuneration system for full-time directors of Hirose Electric is linked with shareholder interests. When deciding remuneration for individual Directors, our basic policy is to set an appropriate standard based on their individual responsibilities. Specifically, remuneration for Executive Directors consists of monetary remuneration, which is a combination of basic remuneration that is fixed in accordance with the individual's position, and performance-linked remuneration based on the consolidated operating margin that varies in accordance with corporate results, and performance-linked share-based remuneration that is linked to improvements in performance and shareholder value over the medium to long term. Performance-linked share-based remuneration was introduced in fiscal 2021 to raise awareness of contributions to performance improvements and increases in corporate value over the medium to long term, with the aim of strengthening management by aligning management interests with those of shareholders to provide the same perspective of shareholders. The remuneration for Outside Directors who serve a supervisory function is only the basic remuneration, depending on their duties.

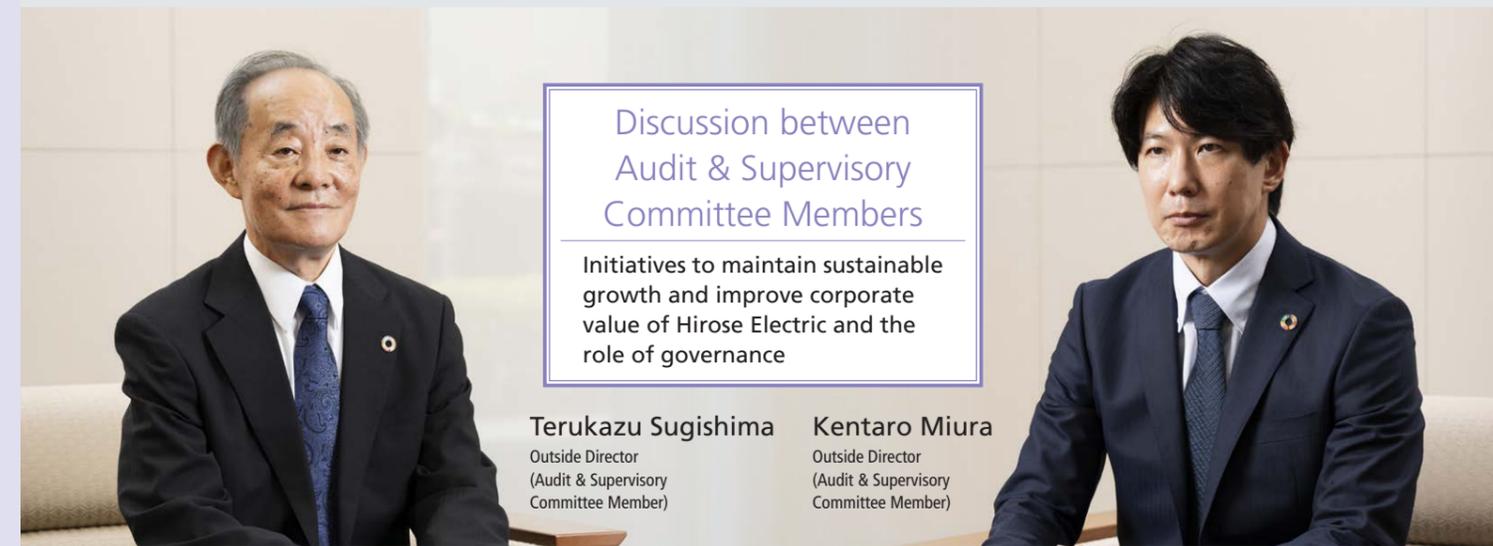
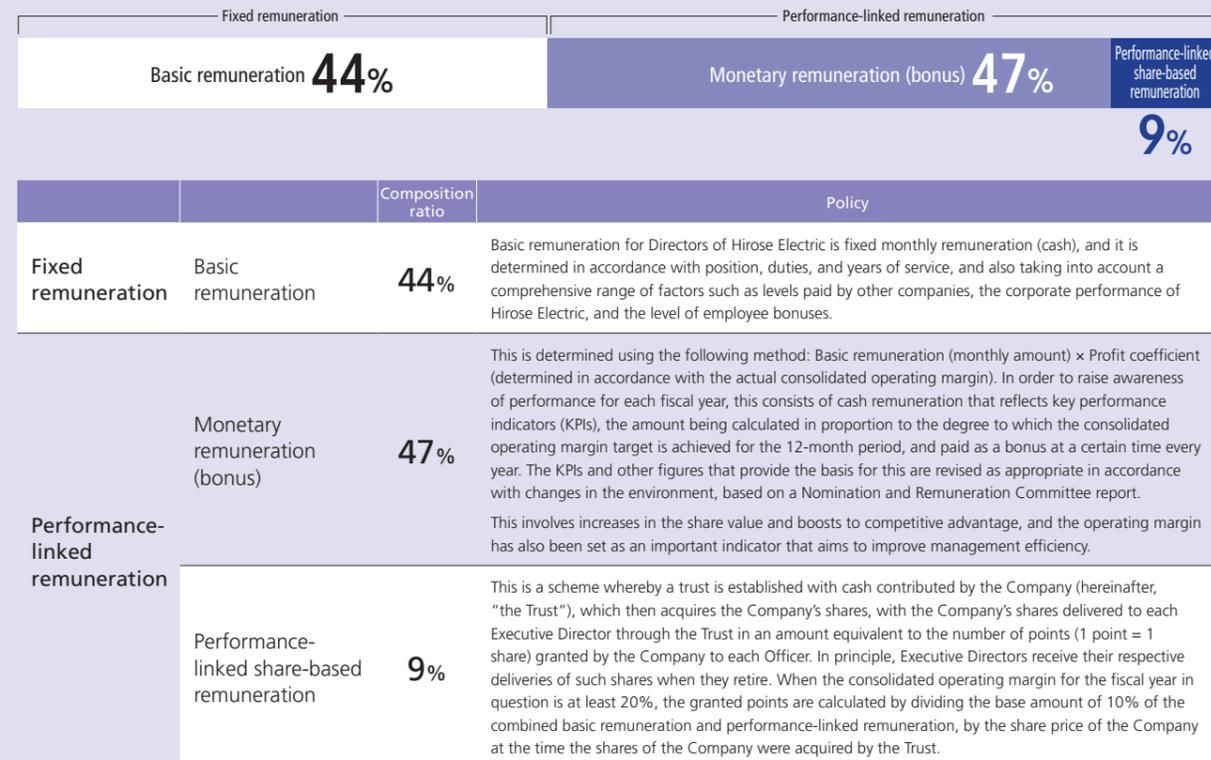
### Determination process

The total of monetary remuneration and share-based remuneration is determined based on the following process. We take into account a range of factors such as corporate performance, social conditions, details of the individual's position and duties, and the level of remuneration awarded to officers of other companies, make draft proposals for remuneration of Directors who are not Audit & Supervisory Committee Members, submit it to the Nomination and Remuneration Committee, of which a majority of the members are Independent Outside Directors, receive the consent of the Audit & Supervisory Committee, send a report to the Board of Directors for deliberation, and leave the decision to the discretion of the President of the Company. This process ensures independence and objectivity.

### Overview of remuneration

The composition ratio of remuneration varies according to performance. The ratio is set based on the guideline of "basic remuneration : bonuses : share-based remuneration" of 44:47:9, which was determined by the base indicator of consolidated operating margin decided at a Board of Directors meeting.

### Composition of remuneration (excluding that of Outside Directors)



**Terukazu Sugishima**  
Outside Director  
(Audit & Supervisory  
Committee Member)

**Kentaro Miura**  
Outside Director  
(Audit & Supervisory  
Committee Member)

### Key features of governance at Hirose Electric

**Sugishima** The Board of Directors of Hirose Electric consists of 13 Directors, including the Audit & Supervisory Committee Members. Of these, five are Outside Directors from a variety of backgrounds, and I believe that the Board of Directors as a whole ensures a good balance in terms of diversity in knowledge, experience, and skills, and that management decision-making and supervision is being conducted appropriately. Information provided to Outside Directors, which is helpful in aiding their understanding of issues, is improving in qualitative terms better year by year.

**Miura** Each of the five Outside Directors have extensive experience in each area such as finance, corporate consulting, and accounting. The Board of Directors convenes once a month, but almost every time the session exceeds three hours in length, and I feel that it is a substantial meeting even from the perspective of governance.

**Sugishima** In fiscal 2021, the Company transitioned from a company with an Audit & Supervisory Board to a company with an Audit & Supervisory Committee. Even before that the current Audit & Supervisory Committee Members routinely attended meetings of the Board of Directors, and asked questions just like other Directors. What has really changed is our own awareness of being Audit & Supervisory Committee Members. Now that we have voting rights, we are able to comment without needing to distinguish between advice and supervision, and as we now participate in voting there is a sense that we have to raise our game further.

### Positioning and role of the Audit & Supervisory Committee

**Miura** The primary role of an Outside Audit & Supervisory Committee Member is to audit the execution of business

by Directors and to prevent misconduct before it occurs. Of course, it is a precondition that Outside Audit & Supervisory Committee Members are independent, but I believe that engaging in meaningful dialogue with employees in order to come into contact with Hirose's unique culture, and achieving a deep understanding and respect for the HIROSE Philosophy is a very important issue for Outside Audit & Supervisory Committee Members. That is because I believe that it is the HIROSE Philosophy that is the wellspring of the Company's strengths, and that it also contributes to improvements in corporate value.

**Sugishima** Because I have many years of experience as a certified public accountant, I perceive my main role as an Outside Audit & Supervisory Committee Member to be ensuring the appropriate disclosure of financial statements, and compliance audits. Another of my roles is to perform audits of propriety that include checking whether the decision-making process of the Board of Directors is objective or not. With regard to propriety audits, we use the "6 Values" of the HIROSE Philosophy as our criteria when making final judgments.

**Miura** I believe that in order to further improve the effectiveness of the Board of Directors, the viewpoint and comments of the three Outside Directors who are not Audit & Supervisory Committee Members are particularly important, but when I have different views or insights I will express them.

**Sugishima** Basically, my creed is one of helping to connect the past, the present, and the future in accordance with the mandate of minority shareholders. The Hirose Group is forging ahead with reforms, some of which relate to governance. I hope to contribute by always considering whether changes will result in Hirose taking a step closer to achieving its vision, and providing insights on accounting issues that help enhance the corporate value of the Hirose Group. I believe accounting

# Corporate Governance

Discussion between  
Audit & Supervisory  
Committee Members

Initiatives to maintain sustainable  
growth and improve corporate  
value of Hirose Electric and the  
role of governance



Our corporate philosophy provides the ultimate criteria when auditing the appropriateness of Board of Directors decisions.

is a kind of universal language that enables us to enter into dialogue with investors outside the company.

## The atmosphere of the Board of Directors

**Miura** I think that we have a livelier exchange of opinions on the Board of Directors compared to that of other companies. Each of the Outside Directors who are not Audit & Supervisory Committee Members have their own character traits, and I learn something new every time. Sometimes the discussions are vehement, and in the end the President exerts his leadership to summarize matters.

**Sugishima** What I feel most strongly is that it is an atmosphere that makes it easy to offer comments. Each Outside Director has expertise in one or more areas, including economics, management strategy, capital markets, human resources and labor, or finance and accounting, and we leverage such diversity of knowledge to speak freely and engage in lively discussions. I believe that the comments made by each Director provide a way for Directors to give each other new awareness. In addition, those on the execution side also listen to our discussions and respond sincerely to them.

## Effectiveness of the Audit & Supervisory Committee functions

**Miura** On the issue of whether the Audit & Supervisory Committee is functioning or not, I remember a proverb in traditional Chinese medicine; “a good doctor treats those who

are not yet ill, a common doctor treats those who are falling sick, and a poor doctor treats those who are already in pain.” This may appear like a contradiction in terms, but we exist in order to ensure that the company does not become one that needs active participation by Audit & Supervisory Committee Members. To invert the meaning, a company in which the Audit & Supervisory Committee Members are heavily involved is one that is failing. The top management who steadily implement their day-to-day duties are, so to speak, equivalent to the good doctor who prevents illness before it occurs. Accordingly, I think it is important that we do not simply pursue results and other such figures but that we also share our opinions candidly with those in management and supervisory roles.

**Sugishima** Because the Audit & Supervisory Committee has fewer members than the Board of Directors, we discuss matters in more detail. For example, during interviews, the Audit & Supervisory Committee can extract more concrete explanations from the general managers of sales or engineering. We can use the information obtained in this way to comment as Officers during meetings of the Board of Directors, which I think leads to the Board of Directors functioning more effectively. In addition, the Standing Audit & Supervisory Committee Members, who have extensive information and knowledge of Hirose, play the leading role in sharing and discussing information, and summarizing our opinions as an audit team. In the case of organizational audits, Audit & Supervisory Committee Members express opinions not as individuals, but strictly as members of the Audit & Supervisory Committee. The frequency of Audit & Supervisory Committee meetings is also increasing, and I feel that the governance and supervisory functions are steadily improving.

Our reason for existence is to prevent risks from materializing.

While maintaining our independence, it is also important to engage deeply in dialogue with employees, including managers and supervisors.



## Diversity on the Board of Directors

**Sugishima** Diversity is being required of boards of directors because it leads to the inclusion of directors with a variety of viewpoints, and to lively discussions, which in turn generate new awareness. If individual directors can express their own opinions after having sincerely accepted the differing viewpoints of others, then I believe that management decision-making will be conducted properly and with greater objectivity. My understanding is that the goal for diversity is to enable decision-making based on carefully listening to the opinions of others, rather than simply asserting one's own opinion.

**Miura** It is a fact that, on the face of it, there are issues with the diversity environment at Hirose Electric, such as the lack of female directors. In addition to searching for candidates with the appropriate skill set, I think it is also important to drive the evolution of Hirose's culture so that we can build an environment in which female employees from within the company want to become managers. When one considers the open culture of Hirose, I feel that in due course we will have a female officer who has come up through the ranks of the Company.

## Diversity for employees

**Miura** Many Japanese companies are promoting diversity by incorporating different genders and nationalities. Of course, outward appearances are also important, but I think that in the case of diversity it is more important to focus on the content. That is to say, what is important is that each and every

individual belonging to the Hirose Group uses their imagination and empathetic ability, respects others instead of pushing their own ideas and, while taking a skeptical approach to so-called commonsense and conventional wisdom, stays humble and seeks to broaden their own minds.

Given that people have lived their lives in different environments, they develop their own characters. This should be seen as the HIROSE Philosophy of “connecting wisdom.” That is to say, what is important is that if one understands and practices the HIROSE Philosophy, gender, nationality, religion and other factors become irrelevant. If we focus dialogue on this basic issue, it will lead to a diversity environment that is fulfilling for employees.

**Sugishima** Recently, I hear it said that people represent not cost but capital. I too have always thought that employees are the fundamental management resource. Under this approach, personnel expenses are not a cost that you work to reduce to the minimum, but a capital good that generates future cash flows.

To put it another way, to employ someone is to purchase a capital good. In terms of how that relates to diversity, the human capital approach consists of employing a wide range of individuals, irrespective of nationality, gender, or age, so that we can develop outstanding human capital that continue to work for the Hirose Group. Basically, what is important is that we promote and establish a working environment in which each employee is happy, can exert their talents, and goes about their work briskly.

# Corporate Governance

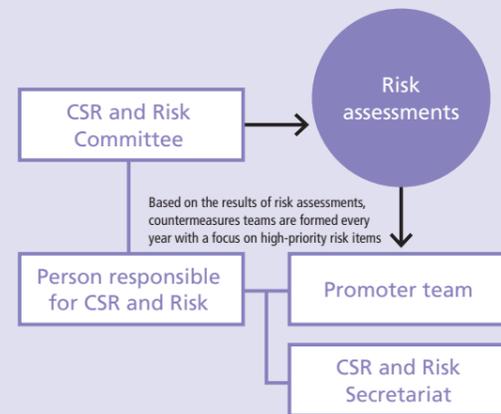
## Risk Management

### Basic thinking

To appropriately address a variety of risks surrounding the Hirose Group, we enacted the Risk Management Standards, established a CSR and Risk Committee based on these standards along with related organizations operating under the committee, and under such system, we share risks in business execution, and perform risk management. By obtaining an understanding of risks that could have a material impact on the smooth operation of Hirose Group business and devising effective and efficient measures for preventing them from materializing, or for dealing with them after they have come into being, we seek to minimize the negative impact on people, assets, and other management resources, as well as on our corporate image, win the trust of stakeholders, and work for the stable development of the Hirose Group.

#### Risk management structure

We established the CSR and Risk Committee with the President as Chairperson. The Committee conducts a risk assessment every year, identifies high-priority risk items, and determines targets to achieve and countermeasures to put in place. Moreover, action plans drawn up by persons responsible for CSR and risks are deliberated and approved, and promoter teams, which are established for specific themes, engage in concrete promotion of the action plans. The CSR and Risk Committee meets once every quarter to check on the progress of action plans, evaluate risks and determine responses, engage in effective risk control activities, and establish a risk management structure.



#### Major risks identified in fiscal 2021, and our response

	Risk identified	Response
<b>Hazard risks</b>	<ul style="list-style-type: none"> <li>Risk of continuation of business becoming difficult due to earthquake, flood, or other natural disaster</li> <li>Risk of human injury caused by occupational accident</li> <li>Risk of cyberattacks</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing simulated training of response to own buildings suffering damage</li> <li>Strengthening of safety education and safety of facilities</li> <li>Ongoing training aimed at responding to cyberattacks</li> </ul>
<b>Operational risks</b>	<ul style="list-style-type: none"> <li>Risk of personal information leaks</li> <li>Risk of supply from subcontractors being suspended</li> <li>Risk of raw material shortages/soaring raw material prices</li> <li>Risk of compliance infringements by employees</li> <li>Risk of impaired physical or mental health of employees</li> </ul>	<ul style="list-style-type: none"> <li>Building of a framework to organize and safely manage personal information</li> <li>Follow up development of BCP at subcontractors</li> <li>Obtaining of information/clarification of reporting criteria on raw material shortages and related issues</li> <li>Ongoing implementation of measures for harassment education/prevention of misconduct</li> <li>Ongoing implementation of stress checks and mental health education</li> </ul>
<b>Strategic risks</b>	<ul style="list-style-type: none"> <li>Risk of human injury and suspension of business due to the spread of infectious disease</li> </ul>	Response to the COVID-19 pandemic <ul style="list-style-type: none"> <li>Continued holding of COVID-19 Countermeasures Meetings</li> <li>Implementation of occupational vaccination using COVID-19 vaccines</li> <li>Encouragement of remote working, depending on status of infections</li> </ul>

#### Information security initiatives

The use of computer systems and computer networks has become vital for the efficient conduct of operations. To reflect the expansion in the volume of data caused by progress in hardware and software, and the need to clarify guidelines for the storage and management of corporate information that is one of the assets of the Company, in fiscal 2008 the Hirose Group formulated the Policy on Information Security, which was incorporated into the Hirose Group Code of Conduct in fiscal 2017, and disseminated throughout the Group. This policy draws together basic policies and countermeasures designed to prevent incidents such as leaks of information assets, and to manage them appropriately. The "Information Security Countermeasures Team" has been established under the CSR and Risk Committee. This works to protect information assets and prevent incidents through educational activities, measures to prevent information leaks, strengthening of countermeasures to cyberattacks, and other initiatives. The headquarters Information Security Countermeasures Team plays a leading role in strengthening information security across the Group as a whole, such as by standardizing security rules for the entire Hirose Group.

## Compliance

### Basic thinking

The Hirose Group is keenly aware not only of the need to observe laws and regulations but also of the importance of holding to our own high standards for ethics and sincerity, and of fulfilling our social mission and responsibilities in conducting corporate activities. In order to realize this in an ever-changing management environment, the HRS Group Code of Conduct clarifies the guidelines and standards for actions of each employee. This Code of Conduct has been translated into English, Chinese, and other languages and distributed to our overseas bases. Through education that uses case studies and other measures that draw on the spirit and meaning of the Code of Conduct, we provide support for employees to understand the Code of Conduct and to incorporate it into their own behavior. By ensuring that each employee holds to a high standard of ethics and acts with sincerity, the Group aims to fulfill its social responsibilities as an organization.

#### Strengthening compliance

We have strengthened compliance in order to promote adherence to laws and regulations and to promote educational activities. In fiscal 2021, we bolstered our legal framework by reorganizing the Human Resources and General Affairs Department into the Human Resources Department and the General Affairs & Legal Department. As well as providing the necessary legal advice and support for each division, we gather feedback from employees through questionnaire surveys on legal issues, and reflect this feedback in activities to instill compliance.

#### Compliance education

In order to encourage understanding and raise awareness of compliance, we implement compliance education at regular intervals for our Japanese and overseas bases. E-learning on a variety of themes is provided to all employees of the Hirose Group on an annual basis, in addition to which employees are afforded opportunities to perform compliance self-checks, review their own behavior, and assess their own level of understanding. To provide opportunities to obtain knowledge of laws and regulations that are applicable to operations, e-learning and workshops are implemented for the departments in question. By sending out compliance news on a regular basis and providing explanations of relevant themes, we routinely work to raise the compliance awareness of employees.

#### Internal report system

In order to swiftly address, resolve, and prevent compliance violations, we have established an internal report consultation counter based on the internal report system. We receive requests (including anonymous requests) for advice on a wide range of subjects, and seek to resolve them through swift investigations and appropriate responses. Privacy of participants is strictly protected. We guarantee that whistleblowers will not receive any disadvantageous treatment. Because internal questionnaire surveys reflected concerns that those using the internal report system would be treated prejudicially, we are working to disperse these anxieties by setting out the responsibilities of those involved in responding to requests for advice, strengthening protection for those who make reports, and clarifying the need to ensure their safety. In addition, to raise awareness of the internal report system we display it on the corporate intranet and on posters, provide explanations of the report procedure, as well as case studies of people asking for advice and the response to these requests, and the measure subsequently taken to prevent a recurrence. In this way we seek to lower the hurdles to making a report, and create an environment in which it is easy to ask for advice.

#### Internal control system

In order to execute operations appropriately in conformance with laws and regulations, and the Articles of Incorporation, across the entire Hirose Group, the Company has built and operates an internal control system, which is subject to continuous improvements. For domestic and overseas Group companies internal control audits are implemented, with auditing covering the implementation of the internal control system, operational processes, and IT operating rules. In internal audits, an independent member of the internal audit team verifies the appropriateness and effectiveness of operations in the Internal Audit Division, and provides instruction to the Division as appropriate, including requests to submit measures to resolve problems. Serious matters are reported to the President. The installation and operation of the internal control system is conducted jointly by the Presidential Staff Office Internal Audit Group, the General Affairs & Legal Department, the Accounting Department, the IT General Administration Department, and improvements are implemented after consultation with the Accounting Auditor. Additionally, by working with Directors who are Audit & Supervisory Committee Members, they listen to the status of installation and continuous improvements to the internal control system by relevant departments, and provide instructions, advice, or opinions as necessary, so that management supervision functions appropriately.

# History

Evolving our business while responding to the expectations of society with technological capabilities

## From 1937

Hirose Group's Foundation

### The challenge to develop original connectors

"The source of value creation lies in new products." This idea formed the basis for our dedication to developing high-value-added original products. At the time when it was normal practice to be emulating overseas products, we were the first in Japan to be developing original products. Hirose Group's foundation can be seen as the "pursuit of the original," and we continue to carry on this spirit today.

## From 1970

To become a small company connecting wisdom

### Pursuing technology

"Even as a small company, we can compete in the global market if we use our ingenuity." With this in mind, we established the "Hirose's Production System," under which we outsource production and focus our company's resources on marketing and new product development. By playing our role as product engineers through connecting with the wisdom of exceptionally skilled subcontractors, we have grown our sales based on the strategies of a small company developing original products.

## From 1998

The pursuit of 100% non-defective products

### Further advancement through production technology

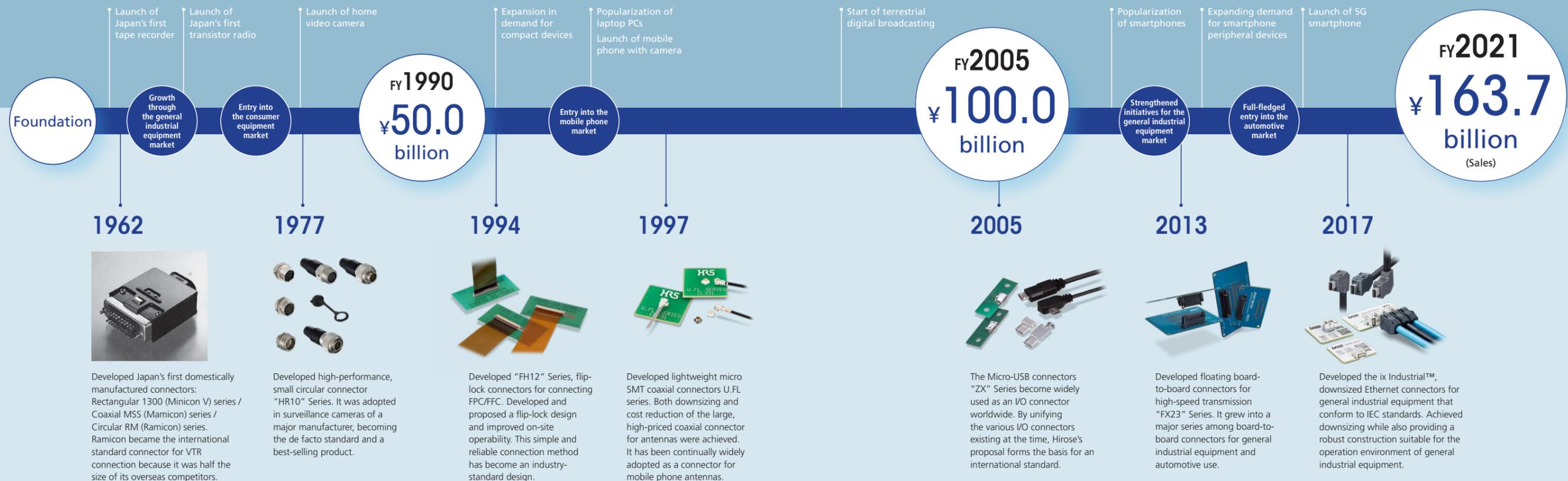
Through our involvement in the mobile phone market, the majority of our sales has been in mass production of multiple product lines. Although we have maximized the value by enhancing the function of products, we established a policy of also pursuing value in the processes for making the products. Our efforts to improve the quality of our connectors while increasing their production capacity, enabled us to secure stable profits and enhance corporate value.

## 2019 to 2021

Full growth with three pillars

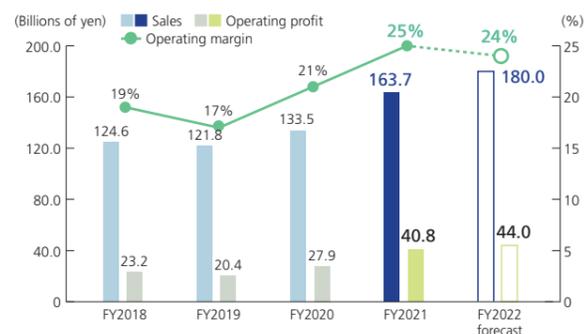
### Aiming for taking a leap forward with G-Wing

We have implemented the Medium-Term Business Plan: G-Wing backed by the three business pillars of consumer equipment, automotive, and general industrial equipment markets, and are building a corporate structure that is not susceptible to changes in the business environment. With our efforts to develop new products in anticipation of market changes having started to pay off, we achieved record highs in terms of both sales and operating profit in fiscal 2021 amid growth across all three pillars. We will keep working to furthermore achieve full-fledged growth on a global scale.



## Fiscal 2021 Review

### Financial highlights for fiscal 2021



(Billions of yen)	FY2020	FY2021	Change	% Change
Sales	133.54	163.67	+30.13	+22.6%
Cost of sales ratio	57.6%	54.2%		
SG&A ratio	22.6%	20.9%		
Operating profit	27.88	40.77	+12.88	+46.2%
Operating margin	20.9%	24.9%		
Profit before tax	28.33	43.08	+14.75	+52.1%
Profit	19.92	31.44	+11.52	+57.8%
Equity ratio	88.0%	86.6%		

Financial results for fiscal 2021 exceeded initial assumptions and consequently achieved record highs in terms of both sales and operating profit. The cost of sales ratio also improved due to higher sales in business overseas backed by depreciation of the yen and to an increase in production efficiency, despite various negative factors such as difficulties in obtaining raw materials, rising logistics costs, geopolitical risk, extreme weather events, and the COVID-19 pandemic.

By industry segment, for the general industrial equipment, we encountered robust sales growth with such results encompassing demand for building up inventories due to shortages of various components and materials. For the automotive, we have been experiencing mounting expectations deriving from emerging needs for electric vehicles and advanced driver assistance systems (ADAS), despite stagnant automotive production largely due to semiconductor shortages. In the smartphone market, we have been encountering a shift to increasingly high performance and functionality even amid a scenario where there is not much likelihood of unit sales growth worldwide given a market occupied by replacement demand. In the consumer equipment market, we have been experiencing expansion in the wearable device market along with growth of new markets such as that of smart consumer electronics.

## Fiscal 2022 Outlook

### Financial results forecast for fiscal 2022

(Billions of yen)	FY2021	FY2022	Change	% Change
Sales	163.67	180.00	+16.33	+10.0%
Operating profit	40.77	44.00	+3.24	+7.9%
Operating margin	24.9%	24.4%		
Profit before tax	43.08	45.00	+1.92	+4.5%
Profit	31.44	33.00	+1.56	+5.0%

For fiscal 2022, we project sales of ¥180 billion, up 10% year over year, and operating profit of ¥44 billion, up 7.9% year over year. Having been subject to certain restrictions imposed on activities due to the COVID-19 pandemic in the past, we seek to engage more intensively in research and development, and aggressively deploy capital investment for developing new products going forward. We position fiscal 2022 as a year to gain a foothold for enabling full-fledged growth over the medium term, and will steadily implement various measures for realizing medium-term business growth premised on our assumptions for achieving forecast results.

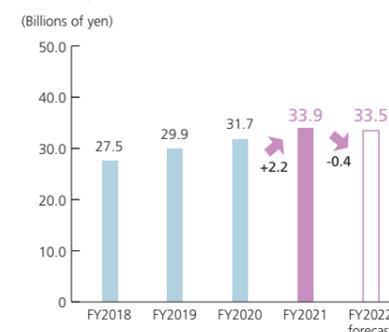
As regards initiatives in our respective industry segments, in the general industrial equipment market we will focus our efforts on expanding production capacity. Also, we have been taking steps to launch new products in markets poised for growth. In the automotive market, we have been responded to market expansion with respect to new products for power trains. For the smartphone and consumer equipment market, we are striving to further strengthen new product development in addressing needs of higher-performance components than conventional products.

### Capital investment



## Highlights by Industry Segment

### Smartphone



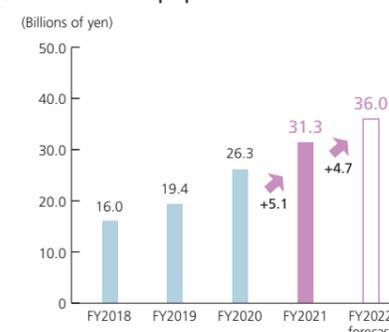
#### Fiscal 2021 financial results

In fiscal 2021, sales for smartphones increased steadily with a gain of 7% relative to fiscal 2020. Though increased in the second and third quarters and decreased in the fourth quarter due to seasonal reasons same as the previous years, sales increased steadily amid demand for 5G-compatible high-end models.

#### Fiscal 2022 outlook

In fiscal 2022, sales are expected to remain largely unchanged or decrease slightly by 1% relative to fiscal 2021. The smartphone market occupied by replacement demand is in a phase of stable growth, however, persisting needs for sophisticated functional enhancements for yearly releases of new product models, therefore we expect not to substantially grow, but to remain consistent.

### Consumer equipment



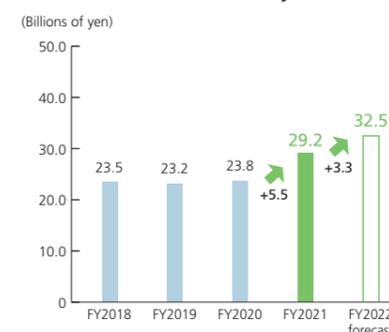
#### Fiscal 2021 financial results

In fiscal 2021, sales for consumer equipment continued to achieve growth, having increased by 19% relative to fiscal 2020. Demand for laptop PCs and wearable devices as a result of remote work arrangements becoming established worldwide has been still strong, which bolstered the increase in the sales.

#### Fiscal 2022 outlook

In fiscal 2022, we anticipate an increase in sales of 15% relative to fiscal 2021. We envision a scenario of ongoing demand with respect to wearable device applications along with rising demand for connectors used in new fields such as smart consumer electronics.

### Automotive and mobility



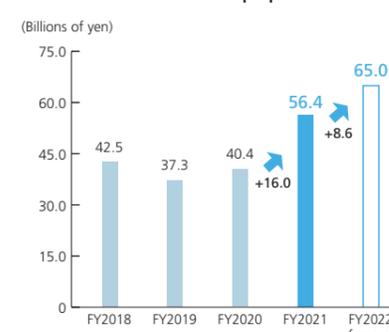
#### Fiscal 2021 financial results

In fiscal 2021, sales for automotive and mobility increased by 23% relative to fiscal 2020. Sales of products for advanced driver assistance systems (ADAS) and power trains increased despite lagging recovery of automotive production largely due to semiconductor shortages.

#### Fiscal 2022 outlook

In fiscal 2022, we anticipate an increase in sales of 11% relative to fiscal 2021. The shift toward greater prevalence of automotive electrification is bound to persist as the market shifts to electric vehicles and a greater proportion of cars come to be equipped with ADAS and other such advanced features. We anticipate strong sales given that this is likely to result in an increasing number of connector installations.

### General industrial equipment



#### Fiscal 2021 financial results

In fiscal 2021, sales for general industrial equipment achieved significant growth, having increased by 40% relative to fiscal 2020. Sales were boosted by persisting strong demand for factory automation (FA). Moreover, it seems likely that the increase also involved demand for building up inventories due to component and material shortages and other such concerns.

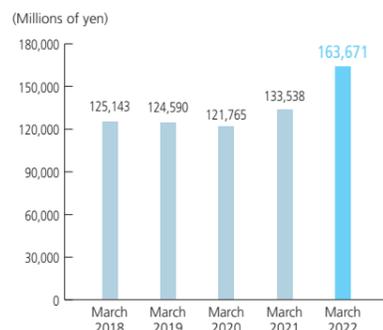
#### Fiscal 2022 outlook

In fiscal 2022, we anticipate an increase in sales of 15% relative to fiscal 2021. Demand in the FA controls and semiconductor markets is likely to remain strong despite there initially having been concerns regarding the prospect of demand recoiling from the previous fiscal year. We anticipate substantial growth also in fiscal 2022 amid the emergence of full-scale momentum with respect to new trends, particularly those involving IoT technologies and smart factories.

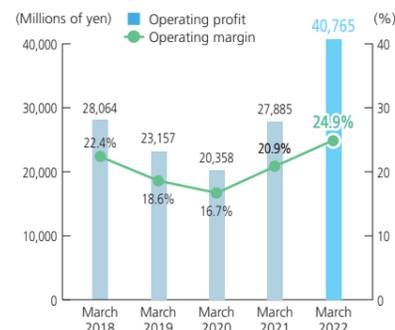
## Financial and Non-financial Summary Data

### Financial Highlights

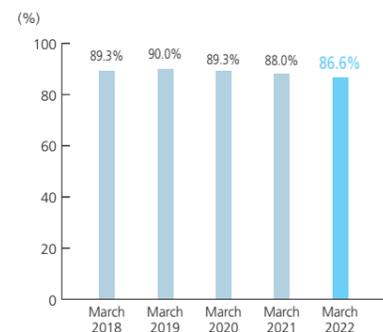
#### Sales



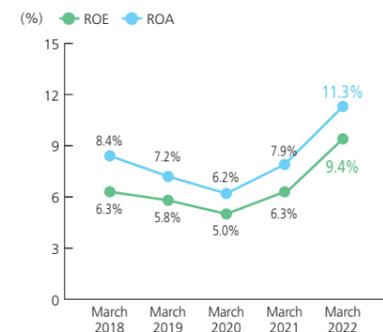
#### Operating profit/Operating margin



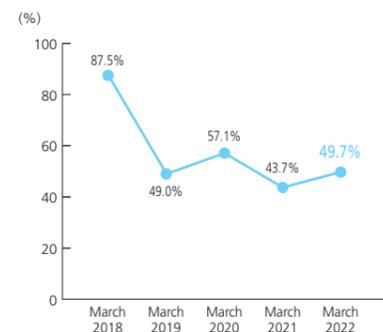
#### Equity ratio



#### ROE/ROA



#### Dividend payout ratio



#### Non-financial highlights \* For only Hirose Electric (incl. certain Hirose Electric Group consolidated operations)

Non-financial data			Mar. 2020	Mar. 2021	Mar. 2022
Number of employees	Non-consolidated	(Persons)	941	935	917
	Consolidated	(Persons)	4,737	4,859	5,070
Number of employees by gender	Male	(Persons)	712	706	690
	Female	(Persons)	229	229	227
Number of employees (contract workers)		(Persons)	49	40	36
Female managers	Ratio	(%)	2.1	1.0	1.0
Women in leadership positions*	Ratio	(%)	3.5	2.9	3.4
Number of new graduates hired	Male	(Persons)	26	17	19
	Female	(Persons)	21	16	11
Attrition rate	Male	(%)	4.1	3.0	3.8
	Female	(%)	9.2	7.4	5.3
Average years of service		(Years)	11.8	12.4	13.1
Average number of paid leave days taken		(Days)	12.0	9.6	12.5
Average monthly overtime hours		(Hours)	16.5	15.6	15.5
Number of employees taking maternity leave		(Persons)	28	10	8
Number of employees taking childcare leave	Female	(Persons)	28	10	8
	Male	(Persons)	1	3	4
Percentage of employees returning to work after maternity/childcare leave		(%)	100	100	100
Number of participants in human capital development programs		(Total number of people)	947	628	1,045
Number of participants in global training		(Persons)	–	44	48
Percentage of employees undergoing routine physical examinations		(%)	100	97	100
Percentage of employees undergoing stress assessment		(%)	97.3	95.2	94.3
Occupational accident frequency rate		(Ratio)	0.0	0.0	0.5

\* Assistant managerial level and above

#### Major financial indicators (Until fiscal year ended March 31, 2017: JGAAP, from fiscal year ended March 31, 2018 onward: IFRS)

Financial data		Mar. 2012	Mar. 2013	Mar. 2014	Mar. 2015	Mar. 2016	Mar. 2017	Mar. 2018	Mar. 2019	Mar. 2020	Mar. 2021	Mar. 2022
Sales	(Millions of yen)	94,790	95,938	124,987	125,726	120,284	115,103	125,143	124,590	121,765	133,538	163,671
Operating profit	(Millions of yen)	19,554	20,985	33,005	32,588	28,794	28,482	28,064	23,157	20,358	27,885	40,765
Operating margin	(%)	20.6	21.9	26.4	25.9	23.9	24.7	22.4	18.6	16.7	20.9	24.9
Ordinary profit	(Millions of yen)	20,919	22,386	34,747	34,962	30,516	29,799					
Profit before tax	(Millions of yen)							28,015	24,671	21,205	28,332	43,081
Profit	(Millions of yen)	12,824	13,508	22,439	22,948	21,104	21,356	19,107	17,891	15,305	19,916	31,437
Net assets	(Millions of yen)	239,601	252,066	269,164	288,302	285,830	296,293	304,719	307,330	306,141	326,092	342,069
Total assets	(Millions of yen)	261,486	277,881	300,751	319,667	316,595	326,696	341,178	341,435	342,644	370,504	394,783
Equity ratio	(%)	90.5	90.5	89.2	90.1	90.2	90.6	89.3	90.0	89.3	88.0	86.6
BPS (Book-value per share)	(Yen)	6,837.39	7,277.62	7,865.65	8,494.44	8,162.65	8,504.89	8,744.07	8,428.61	8,436.41	8,987.05	9,675.08
EPS (Earnings per share)	(Yen)	366.11	390.48	652.68	674.25	596.31	611.81	548.80	489.46	420.39	549.10	885.39
Dividends per share	(Yen)	130	140	200	230	240	240	480	240	240	240	440
Dividend payout ratio	(%)	35.5	35.9	30.6	34.2	40.2	39.2	87.5	49.0	57.1	43.7	49.7
ROE (Return on equity)	(%)	5.4	5.5	8.6	8.2	7.4	7.3	6.3	5.8	5.0	6.3	9.4
ROA (Return on assets)	(%)	8.0	8.3	12.0	11.3	9.6	9.3	8.4	7.2	6.2	7.9	11.3
PER (Price-earnings ratio)	(Times)	23.7	32.5	21.7	23.0	20.8	25.2	26.6	23.8	26.6	31.0	20.2

# Network

## Domestic



Headquarters



TOHOKU HIROSE ELECTRIC CO., LTD.



Kikuna Office



KORIYAMA HIROSE ELECTRIC CO., LTD.



Gotanda Office



ICHINOSEKI HIROSE ELECTRIC CO., LTD.



- **Headquarters**  
2-6-3 Nakagawa Chuoh, Tsuzuki-ku, Yokohama, Kanagawa 224-8540
- **Kikuna Office**  
7-3-13 Kikuna, Kohoku-ku, Yokohama, Kanagawa 222-8566
- **Gotanda Office**  
5-5-23 Osaki, Shinagawa-ku, Tokyo 141-8587
- **Kansai Branch**  
Shinosakaidai Bldg. 7F, 1-5-33 Nishimiyahara, Yodogawa-ku, Osaka 532-0004
- **Chubu Sales Office**  
Nomura Bldg. 4F, 2-7-12 Saiwaicho, Kariya, Aichi 448-0025
- **Kitakanto Sales Office**  
Chuoh-Utsunomiya Bldg. 5F, 3-1-1 Higashisyukugo, Utsunomiya, Tochigi 321-0953
- **West Japan Sales Office**  
Momiji-Hiroshima-Hikarimachi Bldg. 4F, 1-12-20 Hikarimachi, Higashi-ku, Hiroshima 732-0052
- **TOHOKU HIROSE ELECTRIC CO., LTD.**  
(Miyako, Iwate Pref.)
- **KORIYAMA HIROSE ELECTRIC CO., LTD.**  
(Koriyama, Fukushima Pref.)
- **ICHINOSEKI HIROSE ELECTRIC CO., LTD.**  
(Ichinoseki, Iwate Pref.)

## Overseas



HIROSE KOREA



HIROSE CHINA



HIROSE ELECTRIC (DONGGUAN)



HIROSE U.S.A.



HIROSE SINGAPORE



HIROSE ELECTRIC (SUZHOU)



HIROSE EUROPE



HIROSE INDIA



HIROSE MALAYSIA



HIROSE HONG KONG



HIROSE TAIWAN



HIROSE INDONESIA

- HIROSE KOREA CO., LTD. (South Korea)
- HIROSE ELECTRIC (U.S.A.), INC.
- HIROSE ELECTRIC EUROPE B.V. (Netherlands)
- HIROSE ELECTRIC HONG KONG CO., LTD.
- HIROSE ELECTRIC HONG KONG TRADING CO., LTD.
- HIROSE ELECTRIC (CHINA) CO., LTD.
- HIROSE ELECTRIC SINGAPORE PTE. LTD.
- HIROSE ELECTRIC INDIA PVT. LTD.
- HIROSE ELECTRIC TAIWAN CO., LTD.
- HIROSE ELECTRIC (DONGGUAN) CO., LTD. (China)
- HIROSE ELECTRIC (SUZHOU) CO., LTD. (China)
- HIROSE ELECTRIC MALAYSIA SDN. BHD.
- P.T. HIROSE ELECTRIC INDONESIA



## Stock Information

### Stock Information (As of March 31, 2022)

Total number of shares issued	35,365,735 shares (excluding 2,810,207 shares of treasury shares)
Total number of shareholders	3,510

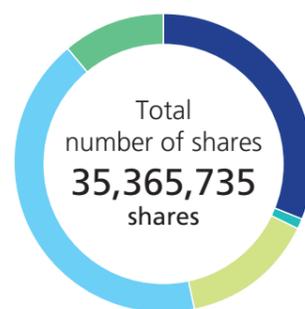
### Major Shareholders (Top 10)

Name of shareholder	Number of shares held (Hundreds of shares)
The Master Trust Bank of Japan, Ltd. (Trust Account)	51,367
Hirose Foundation	31,476
State Street Bank and Trust Company 505223	29,141
JPMorgan Chase Bank 380055	25,002
Custody Bank of Japan, Ltd. (Trust Account)	15,306
HS Kikaku Co., Ltd.	12,215
Custody Bank of Japan, Ltd. (Trust Account 4)	10,524
Mizuho Trust & Banking Co., Ltd. (Trust Account) 0700093	8,707
Mizuho Trust & Banking Co., Ltd. (Trust Account) 0700094	8,652
State Street Bank West Client - Treaty 505234	8,287

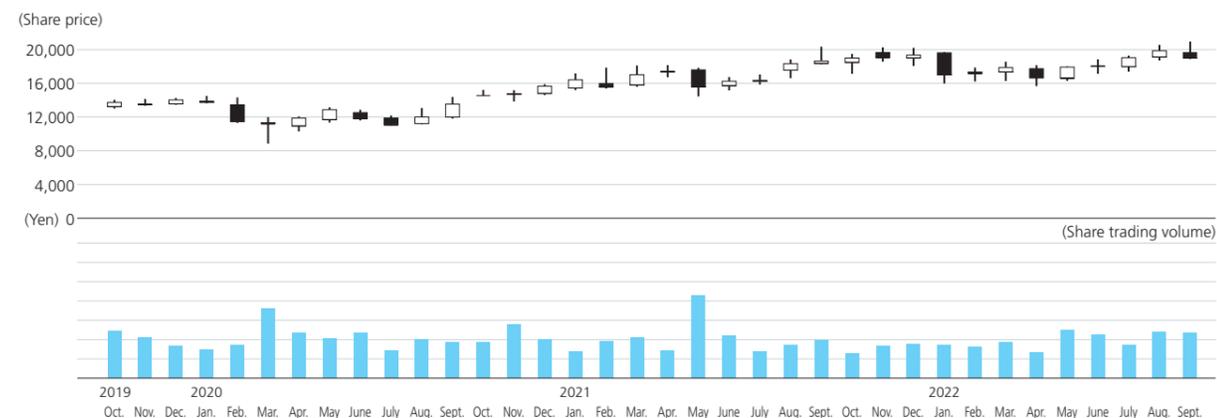
Note: In addition to the 10 major shareholders above, the Company owns 28,102 hundred shares of treasury shares.

### Distribution of Shares by Shareholder Type

Type	Number of shareholders	Number of shares held	Ratio of shareholding
Financial institutions	35	119,965 hundred shares	31.27%
Securities companies	34	4,211 hundred shares	1.10%
Other corporations	159	55,356 hundred shares	14.50%
Foreign corporations, etc.	581	160,501 hundred shares	42.04%
Individuals and others	2,701	42,324 hundred shares	11.09%



### Share Price and Trading Value



## Corporate Data

### Corporate Data (As of March 31, 2022)

Trade name	HIROSE ELECTRIC CO., LTD.
Date of incorporation	June 15, 1948
Number of employees	Consolidated: 5,070 (excluding part-timers)
Capital stock	¥9,404,379,401

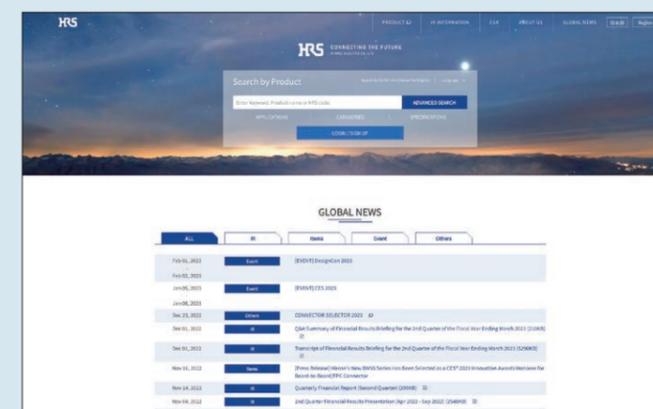
### Directors (As of June 23, 2022)

President and Representative Director	Kazunori Ishii	Outside Director	Kensuke Hotta
Senior Managing Director	Mitsuo Nakamura	Outside Director	Tetsuji Motonaga
Director	Yukio Kiriya	Outside Director	Masanori Nishimatsu
Director	Hiroshi Satoh	Director (Standing Audit & Supervisory Committee Member)	Yoshikazu Chiba
Director	Shin Kamagata	Outside Director (Audit & Supervisory Committee Member)	Terukazu Sugishima
Director	Jun Inasaka	Outside Director (Audit & Supervisory Committee Member)	Kentaro Miura
Director	Sang-Yeob Lee		

Note: Outside Directors Kensuke Hotta, Tetsuji Motonaga, Masanori Nishimatsu, Terukazu Sugishima and Kentaro Miura are Independent Officers who are unlikely to have any conflicts of interest with general shareholders, and are required to be designated by the Tokyo Stock Exchange.

### Website Guidance

<https://www.hirose.com/corporate/en/>



Further detailed investor information and sustainability-related information, and up-to-date information can be obtained on the Group's website.

### Note

This report includes matters based on the Hirose Electric Group's current estimates. Forward-looking statements may differ from the Group's actual results due to known or unknown risks, uncertainties and other inherent factors. We ask for your understanding.