

Perfecting the Art of Electronics



ANNUAL REPORT 2018

ALPS ELECTRIC CO., LTD.

Alps Philosophy

Alps creates new value that satisfies stakeholders and is friendly to the Earth.

The Alps Electric Group's approach to *monozukuri* (encompassing all aspects of product creation) is summed up in the phrase, "perfected the art of electronics," meaning we create products that are right, unique, and green. By perfecting the art of electronics in its products, the Alps Electric Group will pursue new value and enhance its own presence and corporate value, adding comfort to and enriching the lifestyles of people everywhere.

Alps Business Domain

Perfecting the Art of Electronics

— User-friendly communication and relationships between people and media —

Alps Business Approach

Pursuit of Value We will constantly pursue new value creation.

Harmony with Nature We will seek harmony with the Earth's environment.

Partnership with Customers We will learn from customers and respond quickly to their needs.

Fair Management We will act fairly and from a global perspective.

Respect for the Individual We will draw upon the unique enthusiasm of every employee.

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Website Investor Relations http://www.alps.com/e/ir/	Website CSR and the Environment http://www.alps.com/e/csr/	Corporate Profile (Booklet) Website Company Information http://www.alps.com/e/company/
Financial Information		Non-Financial Information

Degree of Importance to Stakeholders

Editorial Policy

Up until fiscal 2012 (year ended March 31, 2013), the Alps Electric Group published the Business Report (Annual Report) and online CSR and environmental information separately. Since fiscal 2013 (year ended March 31, 2014), the aforementioned has been integrated as an annual report covering both financial and non-financial perspectives.

The Alps Electric Group recognizes the importance of promoting awareness about the activities of the Group among all of its stakeholders by readily disclosing information about business plans and results, ESG* initiatives, and other areas. For that reason, we view this report as a vital communication tool.

* ESG refers to environmental, social, and governance factors, which, together with financial information, are considered important for evaluating corporate value. In this report, we summarize primarily Alps Electric Group initiatives relating to ESG factors.

Company Notation

- Alps Electric : The single Japanese business entity, Alps Electric Co., Ltd.
- Alps Group : Alps Electric Co., Ltd., and all of its consolidated subsidiaries in Japan and overseas
- Alps Electric Group : The electronic components segment of the Alps Group

Coverage

Organizations

The report covers the entire Alps Electric Group worldwide, although coverage may vary for different activities.

Period

■ The report principally covers the period from April 1, 2017 to March 31, 2018, but does include some activities occurring prior to or later than this period.

■ Environmental reporting covers the period from April 2017 to March 2018 for Japan, and the period from January to December 2017 for overseas.

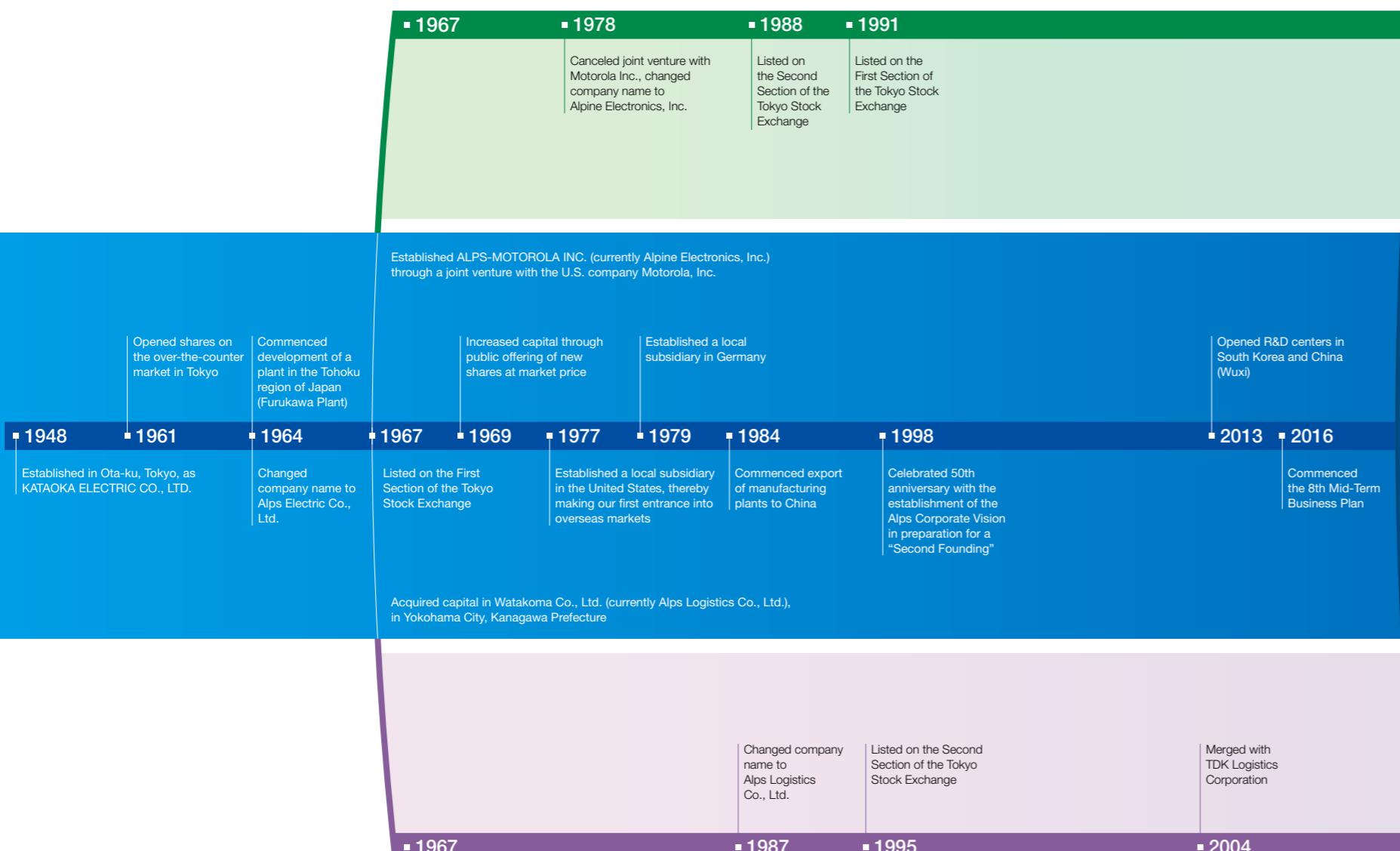
Caution Concerning Forward-Looking Statements

Numerical plans, activity plans, and other forward-looking statements in this report are based on judgments reached by Alps Electric using the information currently available. Please understand that actual performance and results may vary considerably from scenarios described in forward-looking statements due to a wide range of factors.

Published in October 2018

The Alps Group—A World Leader in the Electronics Industry

The Alps Group is a collective business entity comprising three corporate groups: the Alps Electric Group, which is primarily involved in the manufacturing and sales of electronic components; the Alpine Group, a supplier of car navigation and audio systems; and the Alps Logistics Group, an integrated logistics service provider specializing in electronic components. While each group retains its own independence, together they generate synergies within their respective business segments.



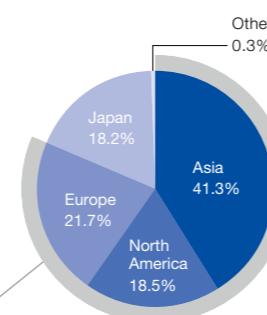
Overview of the Alps Group (Fiscal 2017)

Consolidated Net Sales

¥858.3 billion

Consolidated Overseas Sales Ratio

81.8%



Alpine Electronics, Inc.



Net Sales ¥267.6 billion
(Fiscal 2017)

Through the development, manufacture, and sale of automotive devices, such as car navigation and audio systems, and information and communications devices, Alpine Electronics continues to promptly provide markets with high-quality products.

14th Mid-Term Business Plan
(Fiscal 2017–Fiscal 2019)

Business Goal

Carry Out Reform for New Growth
Aiming for net sales of ¥300 billion and operating profit of ¥12 billion

Priority Items

- Securing profitability and carrying out prior investments for the future
- Responding to four major trends in the automobile industry (automatic driving, connectivity, EVs (electric vehicles), and car-sharing)
- Establishing our uniqueness using our strengths

Alps Electric Co., Ltd.



Net Sales ¥514.0 billion
(Fiscal 2017)

8th Mid-Term Business Plan
(Fiscal 2016–Fiscal 2018)

Vision

Aiming to Become a Company That Can Achieve Sustained Growth

Targets

Net Sales :¥500 billion
Operating Income Margin:10%

Strategies

Profit: Increase profit through dual pillars of smartphone and automotive businesses
Business: Establish the EHII[®] businesses and expand automotive device business

► Please refer to page 20 for further details.

[®]EHII: Energy, Healthcare, Industry, and IoT (Internet of Things)

Alps Logistics Co., Ltd.



Net Sales ¥64.6 billion
(Fiscal 2017)

As a comprehensive logistics company specializing in electronic components, Alps Logistics offers "One Channel Services," which entail transport, storage, export and import, and cargo handling services, on a global basis.

3rd Mid-Term Business Plan
(Fiscal 2016–Fiscal 2018)

Basic Policy

Pursuing the best form of logistics for each customer and accelerating growth on a global scale

- Achieving consolidated net sales of ¥100.0 billion
- Strengthening business foundation to prepare for the leap to the next stage

Business Policy

GTB (Get the Business):

Take on challenges in new domains

GTP (Get the Product):

Innovate on-site operations and strengthen business foundation

GTC (Get the Confidence):

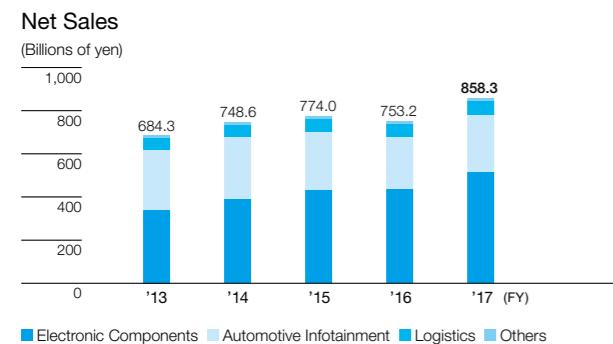
Enhance competitiveness

About the Business Integration

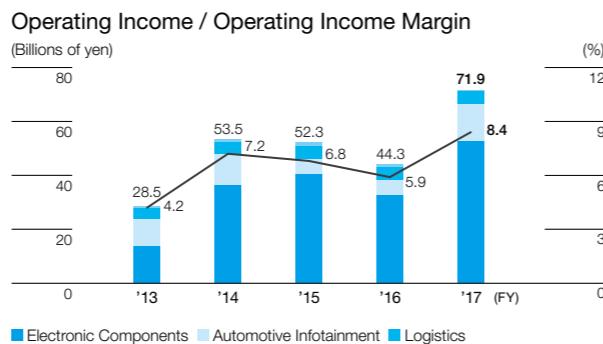
Alps Electric Co., Ltd., and Alpine Electronics, Inc., plan to conduct a business integration on January 1, 2019, and we will transition to a holding company structure.

► Please see "Special Feature: Alps Electric and Alpine Business Integration" on page 28 for details on the business integration.

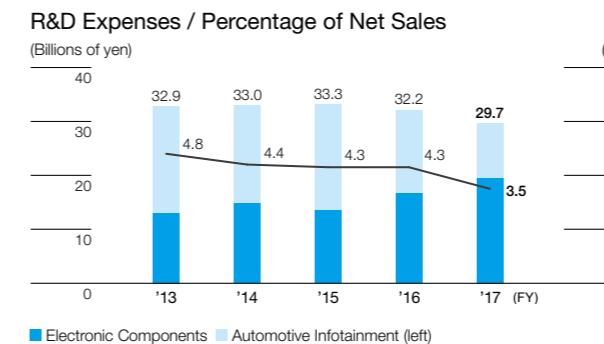
Financial and Non-Financial Highlights



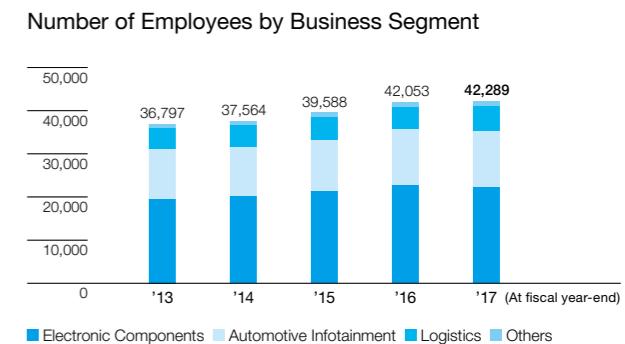
SUMMARY
In fiscal 2017, net sales were ¥858.3 billion (up 13.9% year on year), an all-time high on a full-year basis. In the Electronic Components Segment, sales grew substantially in the consumer market and expanded steadily in the automotive market, resulting in sales of ¥514.0 billion (up 17.4% year on year). In the Automotive Infotainment Segment, commercial product sales were solid and sales of genuine products for automakers expanded, resulting in sales of ¥267.6 billion (up 10.5% year on year).



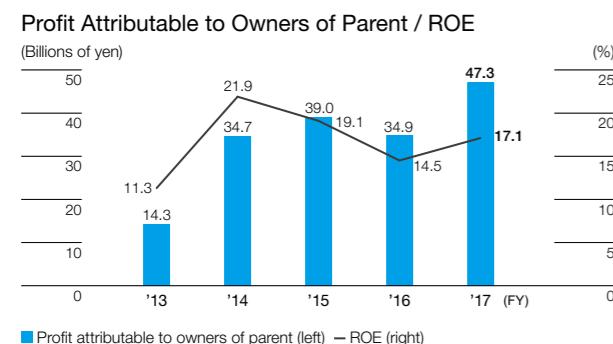
SUMMARY
In fiscal 2017, operating income was ¥71.9 billion (up 62.0% year on year), an all-time high on a full-year basis. In the Electronic Components and the Automotive Infotainment segments, increased productivity, reduced fixed costs, and other factors resulted in an operating income margin of 8.4% (compared with 5.9% in the previous fiscal year).



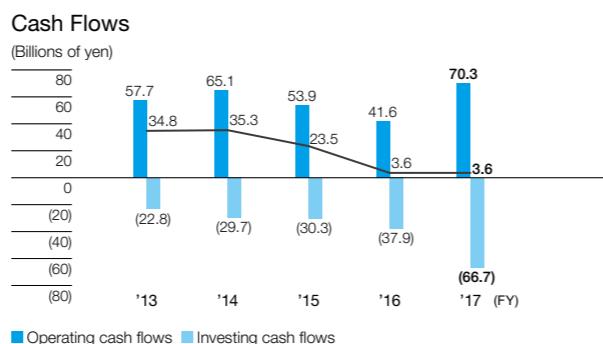
SUMMARY
In fiscal 2017, R&D expenses amounted to ¥19.5 billion in the Electronic Components Segment and ¥10.2 billion in the Automotive Infotainment Segment. With "perfected the art of electronics" at the center of our business activities, throughout our 70-year history we have fully leveraged our unique strengths to create new value.



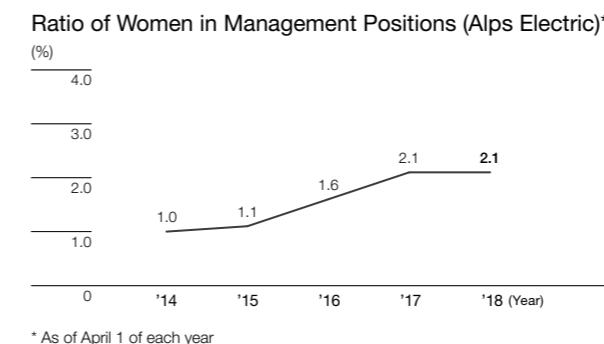
SUMMARY
In response to the business environments of each business segment, we are increasing productivity globally and promoting the fair management of personnel.



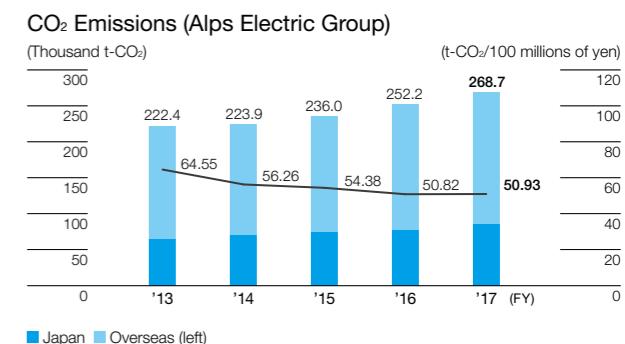
SUMMARY
In fiscal 2017, profit attributable to owners of parent amounted to ¥47.3 billion (up 35.7% year on year), mainly due to the all-time highs in net sales and operating income on a full-year basis. As a result, ROE was 17.1% (compared with 14.5% in the previous fiscal year).



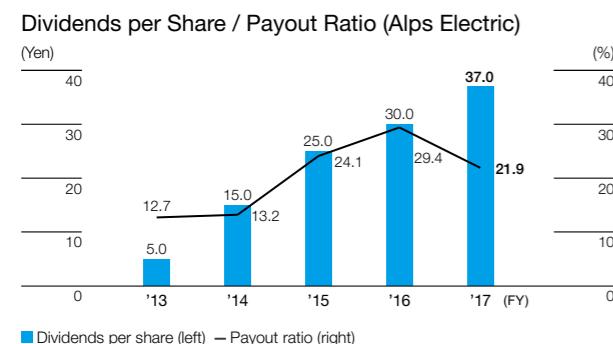
SUMMARY
In fiscal 2017, cash provided by operating activities increased mainly due to the recording of record-high operating income in the Electronic Components and the Automotive Infotainment segments. Net cash used in investing activities increased due to proactive capital investment aimed mainly at expanding the scale of products for smartphones to create future profits.



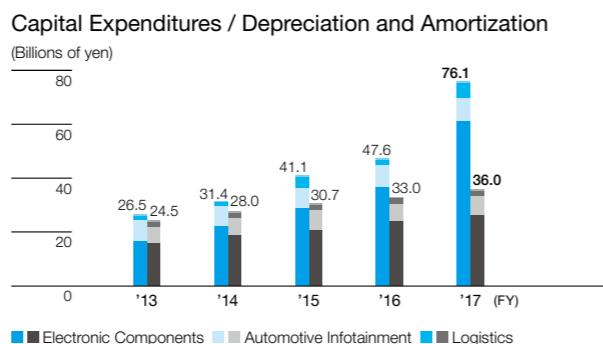
SUMMARY
Alps Electric enables a wide variety of workstyles, including reduced working hours and teleworking, and endeavors to provide an environment in which women can easily attain management positions. Since 2016, we have promoted the creation of female employee networks enabling them to share and overcome concerns pertaining to life events that impact women. We have always provided overseas work and trainee opportunities equally to male and female employees with the aim of increasing the ratio of women in management positions over the long term.



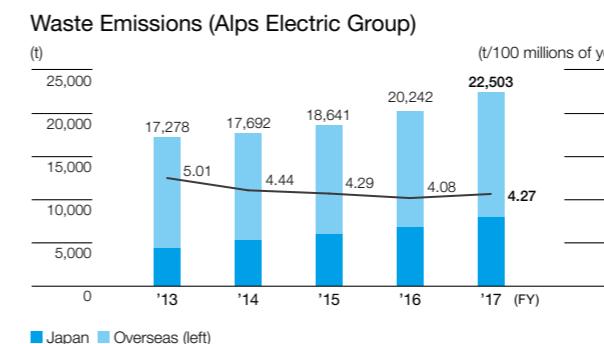
SUMMARY
In fiscal 2017, the Alps Electric Group's CO₂ emissions and CO₂ emissions per unit increased due to a rise in production volume. We will keep working to reduce CO₂ emissions by proactively promoting energy-saving activities throughout the entire Group.



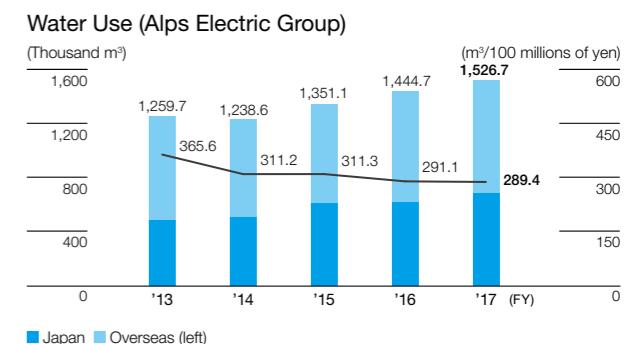
SUMMARY
In fiscal 2017, the interim dividend per share was ¥17, and the year-end dividend per share was ¥20, an increase of ¥7 over the previous fiscal year, resulting in a full-year dividend of ¥37. Our basic policy for determining dividends takes into consideration a balance between shareholder returns, R&D and capital investment for future business development and enhanced competitiveness, and internal reserves.



SUMMARY
In fiscal 2017, we invested ¥61.2 billion mainly in the Electronic Components Segment for the development of component products including camera actuators for smartphones and manufacturing facilities. We made capital investments with the aims of ensuring quality and reducing costs to maintain customer satisfaction.



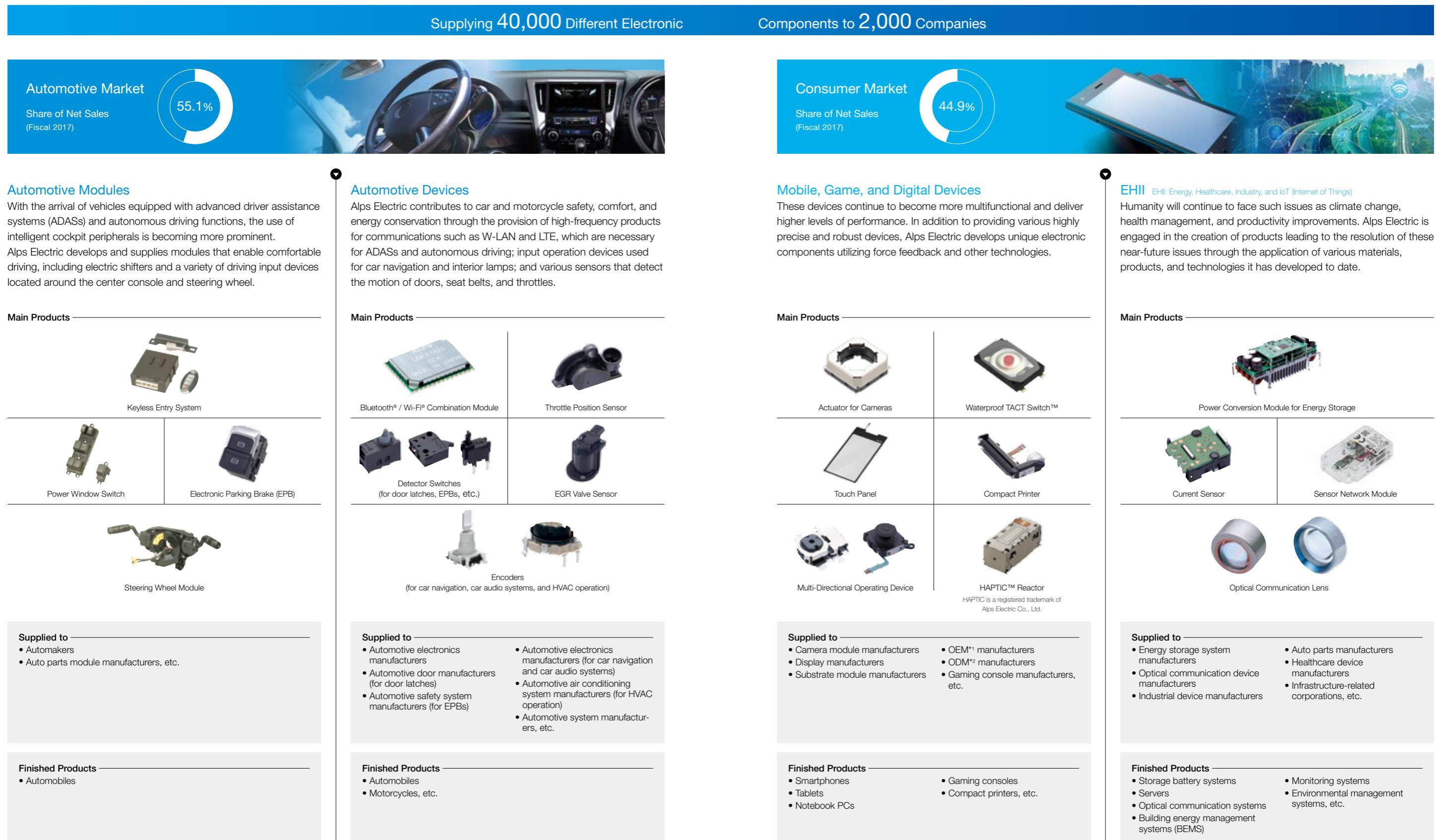
SUMMARY
In fiscal 2017, compared with the previous fiscal year, waste emissions and waste emissions per unit both rose in line with higher production volume. These increases also stemmed from a temporary increase in the volume of waste due to the disposal of equipment and other factors. We will continue to proactively promote improved material yields and other initiatives that utilize resources effectively.



SUMMARY
In fiscal 2017, the amount of water used increased and consumption per unit decreased year on year throughout the Alps Electric Group. Although this increase was due to higher production volume, we will strive to utilize water efficiently in consideration of water risks in the areas where we operate.

Who Is Alps Electric?

Alps Electric is a comprehensive electronics manufacturer, supplying nearly 40,000 kinds of electronic components to customer companies around the world in the automobile, home appliances, mobile, and industrial equipment industries. Through a unique kind of *monozukuri* that accurately comprehends the market and promptly meets the various needs of customers, we have created “First 1” (first-of-a-kind) products and “Number 1” (market-leading) products.

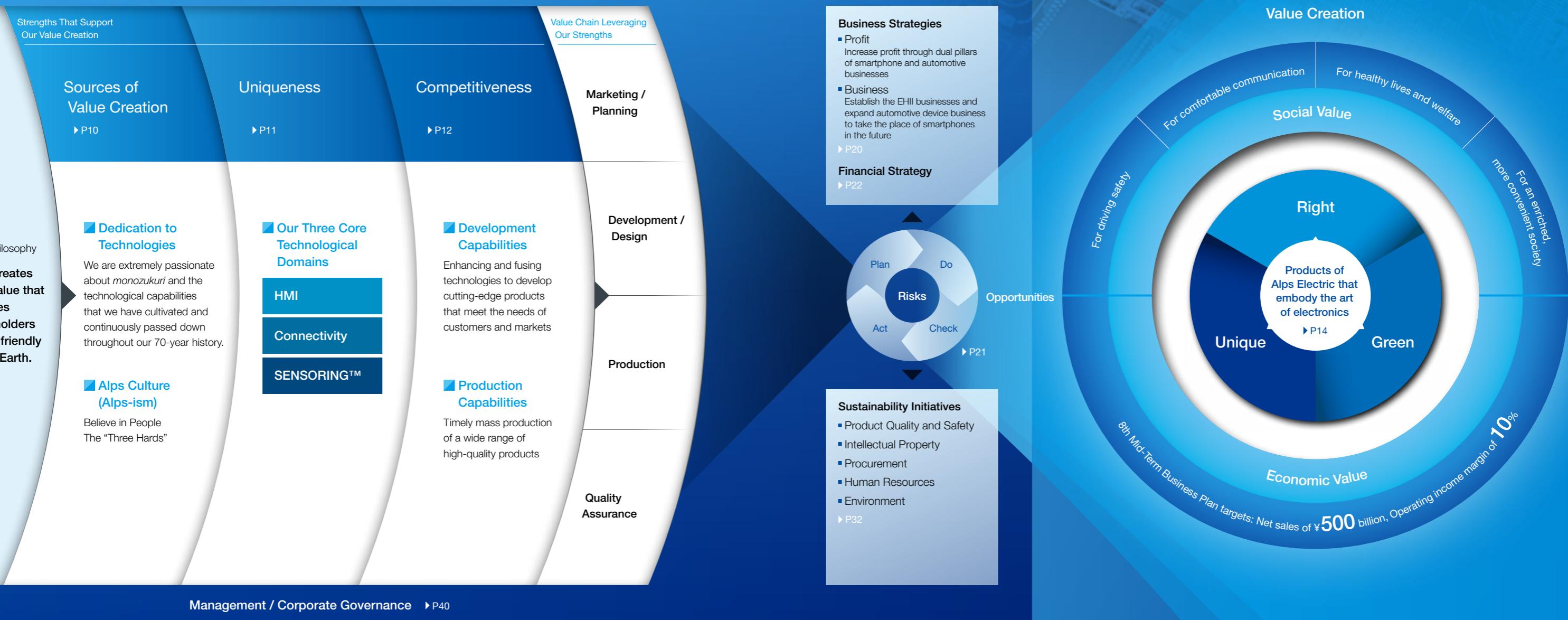


By perfecting the art of electronics, we create new value that satisfies stakeholders and is friendly to the Earth.

The philosophy of "creating new value that satisfies stakeholders and is friendly to the Earth" forms the cornerstone of Alps Electric's business. Guided by this philosophy, we aim to contribute to the development of a sustainable society through our business activities. These business activities center on "perfecting the art of electronics," which involves the creation of products that are right, unique, and green. Throughout our 70-year history, we have leveraged our unique strengths to their full potential to create new value.

Management Resources (Alps Electric Group)

Employees 22,260 (As of March 2018)	R&D Expenses ¥19.5 billion (Fiscal 2017)	Capital Expenditures ¥61.2 billion (Fiscal 2017)	Global Network 83 locations (As of March 2018)	Shareholders' equity ¥305.0 billion (As of March 2018)
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Strengths That Support Our Value Creation

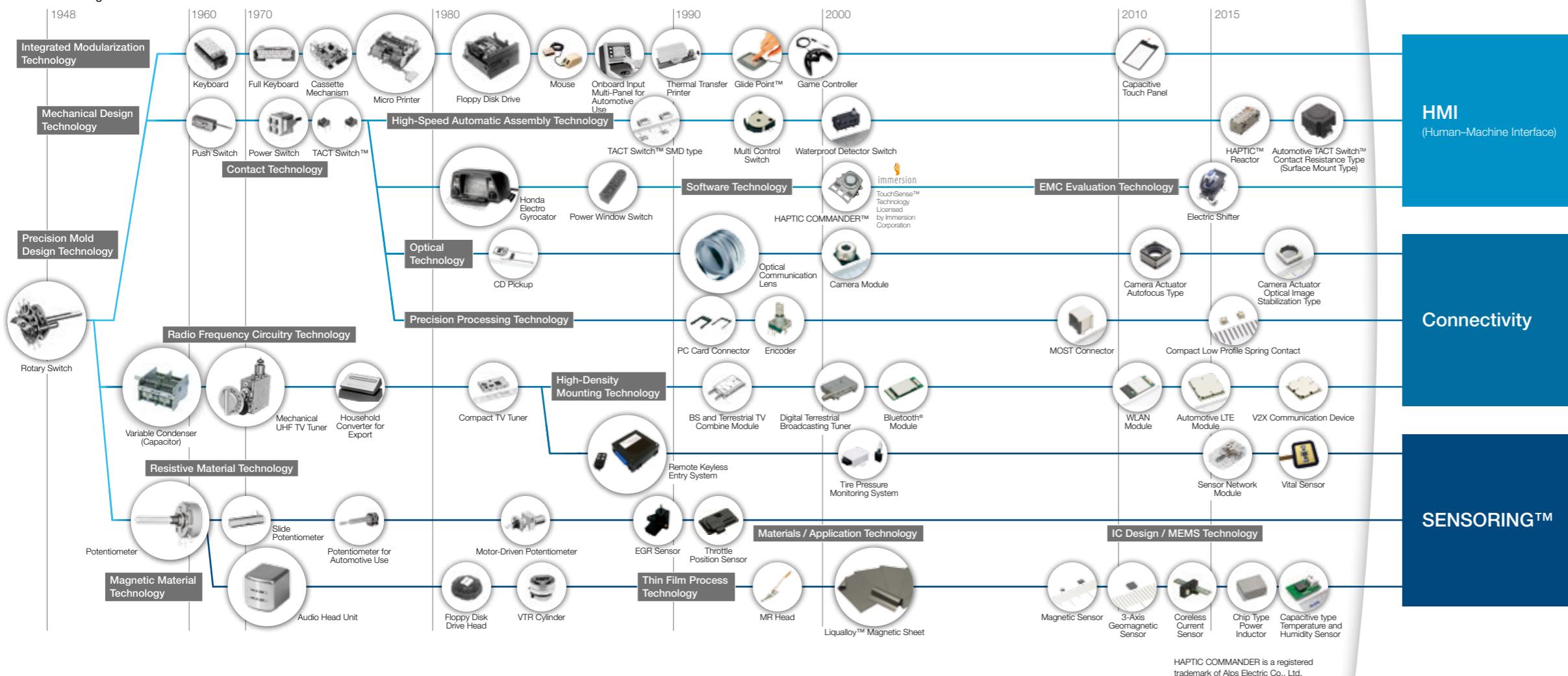
Sources of Value Creation

We create value by perfecting the art of electronics to timely deliver products that meet market needs. Such value creation is supported by the technologies that we have enhanced and melded over the years and by our corporate culture that has been continuously passed down since our founding.

■ Dedication to Technologies

We began to accumulate technologies in 1948, when we started developing rotary switches used to change radio bands. Since then, we have continued to evolve our technologies through the incorporation of new technologies and concepts.

Technological Evolution and Transformation



■ Alps Culture (Alps-ism)

Alps culture, or "Alps-ism," refers to our unique corporate culture. This culture embodies our basic philosophy and code of conduct and has been continuously handed down from one generation of Alps' employees to the next.

Believe in People

People create our business and cultivate our technologies. Therefore, we nurture and harness the full potential of people. In other words, we have established "believe in people" as our universal corporate philosophy. Alps Electric is a company involved in *monozukuri*, which means that people are indispensable to executing our business operations. In addition, by promoting such ideas as "even if a company fails, it does not mean that people fail, so always have a skill that you can sell" and "do not be afraid of failure," we continuously spread a culture that values people and leverages their strengths to the fullest.

The "Three Hards"

The "Three Hards" ("Work Hard," "Study Hard," and "Play Hard") are an important element of "Alps-ism." "Work Hard" means that we always carry out our work in an honest and sincere manner. "Study Hard" entails that we continue to try new things based on a passion for learning. And "Play Hard" calls for us to take pride in the work that we do as a team and display our strengths through a sense of solidarity. The "Three Hards" provide the foundation for our business activities, and we continue to leverage them as strengths as we carry out our duties.

Uniqueness

The enrichment of human-machine interface (HMI) technology, the expansion of sensor varieties, and the growth of connectivity-oriented businesses represent three unique pillars that support our businesses. These pillars support the basis from which we contribute to the comfort and enrichment society desires through the development and manufacture of electronics that are friendly to both people and the planet.

■ Three Core Technological Domains

Based on the Alps Philosophy, we supply components from our three core technological domains to a wide range of markets all over the world.

Alps Electric has a solid track record in input devices that dates back to the time of its founding. We have adapted to the times by developing more compact and lightweight products and have been responding to demands for greater integration and multifunctionality. Maintaining elevated standards for operating feel, we constantly pursue the creation of the most appropriate products.

Alps Electric supplies a variety of data communication modules, making extensive use of radio frequency (RF) technology and software to support Bluetooth®, W-LAN, LTE, and other standards, as well as supporting such advancements as V2X (vehicle-to-x) technology in the automotive domain. We continue to support easy, reliable access to diverse information with unique product varieties, including products combining input devices and sensors.

Alps Electric harnesses original materials, process technologies, and software to create compact, highly sophisticated devices. We supply an extensive variety of compact, high-sensitivity sensors for the constantly evolving mobile domain, and provide compact current sensors compatible with high voltages for automobiles. By combining environment-friendly sensors with wireless communication technologies, we will support the practical application of the IoT going forward.

Shimidashi

Enhancing the Competitiveness of Our Core Technologies

Shimidashi, or "trickle-out" product development, involves gradually expanding our business domains through the addition of new functions and technologies while maintaining continuity throughout the development processes for our products and technologies. In addition, *shimidashi* applies not only to continuity within our product and technological development processes but also with regard to the management of the facilities we possess and the long-cultivated manufacturing techniques we implement.

Through *shimidashi*, we are working to increase our sales by developing new products and entering into new business domains while also making efforts to improve investment efficiency and enhance cost competitiveness.

Competitiveness

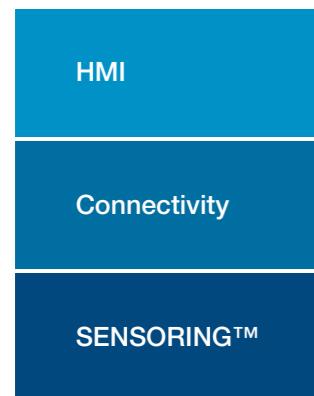
Our competitiveness lies in our development and production capabilities. Our development capabilities refer to our ability to develop products that are right, unique, and green and contribute to the enrichment of society as a whole. Our production capabilities are with regard to our ability to mass-produce products and supply them on a global scale while maintaining high levels of quality. Together, these capabilities support the business activities of the entire Alps Electric Group.



Development Capabilities

By enhancing and fusing its proprietary technologies, Alps Electric is developing cutting-edge products that meet the needs of customers and markets.

Three Core Technological Domains



Proprietary Technologies

	Evaluation / Simulation		Patterning / Packaging
	Design / Assembly		Optical Design / Molding
	Microfabrication		Materials / Application
	Thin Film Processes		IC Design

► For details on our proprietary technologies: http://www.alps.com/e/company/pro_tech.html

Creating Products with New Value by Enhancing and Fusing Our Proprietary Technologies

Promoting Initiatives to Further Enhance Development Capabilities

Promoting Open Innovation with the Aim of Strengthening Core Technologies

In March 2017, Alps Electric and Tohoku University concluded an organizational collaboration agreement. The agreement is aimed at creating businesses involving state-of-the-art technologies and cultivating human resources tasked with driving innovation while contributing to the promotion of the electronic components industry and the development of society.

Based on this agreement, a collaborative facility was built on the Tohoku University campus in December 2017, concrete joint research themes were established, and collaborative activities are moving forward. Specifically, in the HMI domain, one of the three core technological domains on which we are focusing efforts, we have launched joint research and technological development in conjunction with multiple laboratories aimed at realizing device operation that enables users to feel "truly comfortable."

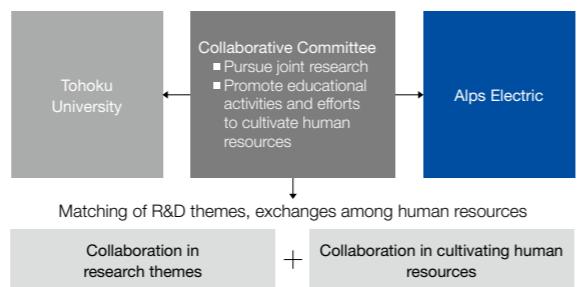
Alps Electric also participates in the planning of "social creation bases that increase motivation and lead to the ideal self and strong family bonds realized through casual sensing daily medical checkups," one of the Ministry of Education, Culture, Sports, Science and Technology's Center of Innovation Science and Technology-Based Radical Innovation and Entrepreneurship Program (COI STREAM) research projects in which Tohoku University plays a leading role. As part of this project, Alps Electric provides sensor products and sensing technologies for the social implementation

of research to ascertain health conditions resulting from human movement and changes in surrounding environments.

Further, through an agreement related to the promotion of research collaboration concluded with Iwate University, we engage in joint research on thermal conduction control for printers and the bonding of dissimilar materials.

We also participate in the Strategic Innovation Promotion Program (SIP) and promote joint research with several other universities and research institutions with the aim of further strengthening our core technologies.

Outline of Industry–Academia Partnerships for the Co-Creation of a Future Vision



Production Capabilities

While striving to meet the needs of customers, Alps Electric is working daily to improve its production capabilities, which allow it to mass-produce a diverse range of high-quality products.

Development of Production Technologies

That Improve Productivity

Alps Electric provides products to a wide range of markets. In regard to products supplied to the mobile market, centered on smartphones, and the automotive market, production processes and the composition of materials and components differ, as do product life cycles. To continue to enhance productivity amid these circumstances, the automatization of production processes is essential. As such, we are moving forward with the development of robots and automated machines that best suit the characteristics of each individual product. We are also promoting the development of production technologies that help realize a production structure that can promptly adapt to changes in product categories.



Mold Technologies Supporting Enhanced Operation Rates through Product Precision

Precision molds represent one of Alps Electric's strengths. The in-house manufacturing of molds boasting high levels of sophistication is what allows us to mass-produce high-quality products with a precise composition. In addition, we manufacture molds that optimize processes for shortening cooling times and other processes, thereby realizing enhanced operation rates. By integrating on-site production, which supports our unique technologies, and our mold manufacturing divisions, we are able to leverage our production capabilities to an even greater extent.



Promptly Supplying Products on a Global Scale through Comprehensive Production That Covers Everything from Molding to Assembly

Promoting Initiatives to Further Improve Productivity

To further improve our productivity and realize the *monozukuri* of the future, the Alps Electric Group is focusing on the following efforts.

Strengthening On-Site Capabilities

To perform the tasks that need to be done, such as meeting delivery dates and adhering to rules and regulations, we are thoroughly pursuing well-disciplined management centering on the 5S methodology (sort, set in order, shine, standardize, and sustain). We are also focusing our strengths on cultivating specialists who will oversee each on-site function of manufacturing. We will expand and implement these kinds of efforts at all of our production bases around the globe.

Innovating Production Methods

Recently, in addition to the production of many kinds of products in small amounts, there has been an increased need and potential for producing a wide variety of products in bulk. As production-related needs are expected to become more diverse going forward, we are moving ahead with the development and introduction of production methods that can respond to various circumstances.

Preparing for the *Monozukuri* of the Near Future

As not only market needs but also rules and regulations continue to change, the evolution of *monozukuri* has become essential. With its sights on the future, the Alps Electric Group will carry out experimental work related to materials, production equipment, and production processes as and will promote the development of new technologies.

Rate of productivity improvement during the period of the 8th Mid-Term Business Plan:
Target by fiscal year

Over 13.6% (YoY)

Fiscal 2016: 15.6% Fiscal 2017: 15.9%

Alps Electric's Products Embody the Art of Electronics

Alps Electric pursues the concept of "perfecting the art of electronics." This means that we create products that are right, unique, and green. Going forward, we will continue to perfect the art of electronics to provide new value to our customers. In doing so, we will contribute to enriched lifestyles that are more convenient and safer.



Conditions for "perfecting the art of electronics"

The optimal balance of appearance (the ambience of the product), price, function, performance, and quality to meet customer needs and convey the ideal concepts

Beauty that incorporates the uniqueness of Alps and original value that appeals to customers



Friendliness toward the environment that not only gives consideration to sustainable components but also promotes recycling and contributes to a reduced environmental burden

Case Study 1

HAPTIC® Reactor



The HAPTIC® Reactor is a representative example of our compact vibration devices, which are used in gaming consoles and virtual reality (VR) and augmented reality (AR) devices. Capable of generating a variety of vibrations, in combination with input operations and operational scenarios, this electronic device uses vibration to provide feedback through an operator's sense of touch. Pressing a button on the screen turns on the operational feedback function during simple input operations. It can also be used to transmit a variety of vibrations to match music and sports scenarios, communicating a realistic sense of being "on location" through a user's sense of touch.

Right Compact, but Capable of Strong Vibration

Handheld electronic devices require compact electronic components. The size of vibration devices, meanwhile, needs to correspond with that of the devices in which they are used to convey a realistic sense of presence to the user. To satisfy these conflicting requirements, Alps Electric employed a mechatronic design to achieve the resonant vibration of an electromagnetic drive. As a result, we succeeded in developing the HAPTIC® Reactor, which is both compact and capable of generating maximum vibration.

Unique Device That Generates Various Vibrations

One feature of the HAPTIC® Reactor is its ability to generate myriad vibrations within a single device. Using mechatronic design technology, which Alps Electric has cultivated over many years, and the Company's proprietary spring structural design resulted in a vibration device capable of generating multiple resonant frequencies. As a result, specific frequency inputs generate large vibrations, and the device can reproduce a wide variety of vibrations, from subtle to substantial.

Green Power-Saving

Handheld electronic devices need to have low power consumption. The resonance phenomenon, which is the driving principle of the HAPTIC® Reactor, allows for large vibrations to be generated while consuming little power, helping save energy.

Case Study 2

Automotive Current Sensor



Automotive current sensors are electronic devices used in electric vehicles (EVs) and hybrid vehicles and located at a vehicle's heart. Motors drive EVs, and automotive current sensors sense current values in the inverters that convert direct-current electricity to alternating current, thereby operating the motor.

Right Compact and Lightweight

Automotive parts need to be compact and lightweight—compact so they can fit into the limited space available on a vehicle and lightweight to maximize driving distance for a given amount of electricity. Reducing the weight of the vibration element is one of the best ways to lower the weight of vehicles operating in severe environments. Alps Electric has succeeded in eliminating the core components considered crucial to other current sensors. As a result, we have realized current sensors that are suited to vehicles in terms of compactness, light weight, and high reliability.

Unique Unique, Highly Sensitive Magnetic Element

The highly sensitive magnetic development we realized in-house allowed us to produce current sensors without core components. This device technology and the new current sensors they have enabled are a result of applying the expertise we cultivated through magnetic heads for hard disk drives and our *shimidashi* approach.

Green Reduced CO₂ Emissions and Resource Savings

Current sensors are electronic components found in hybrid vehicles, which emit less CO₂ than gasoline-powered vehicles, and EVs, which emit no CO₂. For this reason, current sensors are sometimes considered part of the reason for reducing CO₂ emissions. They also help conserve resources in other ways, such as by not using a core and being compact, thereby requiring less packaging material.

Viewing the massive waves of major change as an opportunity, we are taking steps to become a company that can realize sustainable growth.



Toshihiro Kuriyama

Representative Director and President

■ Fourth Industrial Revolution to Expand Opportunities for Further Use of Electronic Components

The societies in which we live are currently approaching an age of major transformation known as the “Fourth Industrial Revolution.”

People all over the world are connected by smartphones and social media, and in recent years the Internet of Things (IoT) has given rise to a new business model due to the linking of various information from things such as automobiles and machines, social infrastructure such as hospitals and railways, and services such as shopping. Further, the enormous amount of data collected from the IoT is now being used by artificial intelligence (AI) to understand, control, and make predictions that lead to actions.

In this context, those of us in the electronics industry have a tremendously important role to play.

In the automobile market, automakers are strengthening initiatives in the new connected, autonomous, shared & services, and electric (CASE) vehicle territory, increasing the need for electronics. In the mobile market, smartphones have been the driving force of the electronics industry. Despite undergoing commoditization from 2017, smartphones continue to demonstrate a presence as the core IoT device connecting people to one another and society. The introduction of virtual reality (VR) equipment has revitalized the gaming console market, while in the IoT market, sensors that capture various movements, communication modules that transmit collected data to servers, and other electronic components have begun to expand into new areas of activity.

■ 8th Mid-Term Business Plan's GT510 Target Achieved One Year Ahead of Schedule

Since April 2016, we have been promoting the three-year 8th Mid-Term Business Plan in the Electronic Components Segment. In fiscal 2017, the second year of this plan, we achieved all-time highs in net sales and operating income. In the automotive market, various types of input modules and sensors installed around the driver's seat and other high-frequency products for communications performed well. Due to steady efforts to improve profits, a critical issue facing the Company, achieving the 8th Mid-Term Business Plan's initial target of ¥300.0 billion in net sales in the automotive market is now within reach. In the consumer market, sales of various

components for smartphones grew substantially, and HAPTIC™, which enables VR for gaming consoles, continued to perform favorably, moving us even closer to our target of ¥200.0 billion in net sales in the mobile market. In the new EHII markets, the Alps Electric Group promoted the use of the IoT in a wide range of industries, among a variety of other activities that produced solid results.

Due to these efforts, we reached the 8th Mid-Term Business Plan's GT510 target (¥500.0 billion in net sales and a 10% operating income margin) one year ahead of schedule.

■ Shifting Focus from Quantity to Quality, Preparing for Future Growth

Amid the Fourth Industrial Revolution, we view fiscal 2018 as a time to prepare for future growth.

In the automotive market, we will focus on the development of new products and technologies targeting the CASE area and expedite the creation of future business. In the mobile market, we will promote the development of new products for smartphones while maintaining supply stability and controlling fixed costs by thoroughly utilizing existing equipment. In the EHII markets, we will continue to promote proposal activities and collaborations with other companies

to quickly establish a foundation for business in this area.

Additionally, the entire Company will engage in productivity improvements. By saving labor through the use of AI and robotics and making better use of employees, we can allocate more human resources toward the shift to CASE, the IoT, and other new areas that will drive new growth.

From our focus on quantity in recent years due to business expansion, we will shift to a focus on quality as we steadily proceed with preparations for the coming era.

■ Toward Steady Growth with “T-Shaped Company” Alps Alpine Co., Ltd.

Amid the developments of the Fourth Industrial Revolution, such as an accelerating focus on CASE areas in the automobile market and the EHII markets, where business model diversification is on the rise, we are working to ensure we remain a corporate group that creates a variety of value. To this end, we are moving forward with preparations for a business integration that will become effective on January 1, 2019, with the start of Alps Alpine Co., Ltd.

As a manufacturer of electronic components, Alps Electric's business is centered on three technologies and product domains: the human-machine interface (HMI), connectivity, and SENSORING™. Our pursuit of these core device technologies and efforts to continuously enhance our product capabilities have made us a “vertical-I” company with depth in elemental technologies and functional devices. At the same time, Alpine, which engages in the automotive infotainment business as a system integrator that assembles software development and a wide range of device manufacturer technologies and products together into systems, as well as develops proprietary brand business and products, is a broad-ranging “horizontal-I” company. The integration of these businesses will combine their respective depth and breadth to create a “T-shaped

company” that will connect the unique strengths of each to create innovative new products and realize faster, more flexible decision-making that will enable us to further evolve as a company and achieve steady, sustainable growth.

We can point to the creation of new automotive businesses as a specific result of the synergy we expect to achieve from this integration. While enhancing product development in the CASE area, we will create highly profitable new businesses in “CASE + Premium HMI” as a new growth area by jumping on the trend toward premium design in vehicle cockpits and interiors that stimulate the desire to own a premium vehicle. Also, within the IoT in the EHII markets, we will develop a variety of businesses meeting customer needs, including systems and services leveraging Alpine system design and software development, in addition to IoT gateways using our sensors, high-frequency products for communications, and a variety of other devices.

As a result, the newly integrated company, Alps Alpine Co., Ltd., will become an “Innovative T-shaped Company (ITC) 101” targeting ¥1 trillion in net sales and a 10% operating income margin by the 2nd Medium-Term Business Plan.

■ As a Member of Society, Pursuing Quality and Harmony with the Earth

While our lives have become increasingly convenient and comfortable due to advances in electronics, safety is becoming ever more important. Going forward, advances in the CASE area will indirectly expand the role of electronic components, which in the past focused on realizing comfort in automobiles, to fields related to the basic functions of driving, turning, and stopping. Beyond responsibility for some of the functions affecting human life, we must never neglect the most critical issue, which is maintaining quality.

“We shall create top-quality products, always remembering to contribute to society.”

This is an excerpt from the Alps Precepts (Founding Spirit), established on the occasion of the Company's founding. Having begun from a variety of home appliances, we formally entered the automotive market in the 1980s. In the 1990s, we became involved in optical communication components

used in submarine cables for intercontinental communications and have met other demand for highly durable and reliable products used in harsh operating environments. Going forward, we will continue with these efforts.

Another initiative on which we have been focusing efforts for some time is coexistence with the global environment. The fundamental philosophy and action guidelines for Companywide environmental preservation activities were formulated in 1994. Since then, in addition to initiatives focused on manufacturing activities in Japan and overseas, we have promoted product development that contributes to the environment from the standpoint of energy conservation. In 2016, we accelerated development through an absorption-type merger with subsidiary Alps Green Devices Co., Ltd. Further, in recent years we have been promoting activities focused on manufacturing and development, such as establishing a development center in Tokyo.

■ The Ongoing Challenge of Taking the Words “Change is Opportunity, Change Makes People Grow” to Heart

The wave of change washing over the electronics industry will be difficult to withstand by simply relying on conventional business models. Switches are likely to decrease due to the spread of voice commands, car navigation will be replaced by smartphones, and car sharing will have a major impact on the number of new cars sold. Furthermore, in the new EHII markets the successive entry of companies from different industries with new ideas is intensifying development competition on a daily basis.

Rather than viewing these various changes as risks, we consider them to be new challenges for the next stage of growth, and we will continue to proactively take on these challenges. Based on our core technologies, we will leverage synergies created from the business integration with Alpine

to strive toward the development of proprietary products with unsurpassed superiority as our employees constantly devise a variety of ingenious ideas to engage in productivity improvements leading the way to the next generation.

Taking the words “change is opportunity, change makes people grow” to heart, we will move courageously forward in this age of major transformation in our aim to become a company that can realize sustainable growth.

September 2018

T. Kuriyama

Progress of the 8th Mid-Term Business Plan / Risks and Opportunities

Alps Electric is moving forward with the 8th Mid-Term Business Plan, which commenced in fiscal 2016, ended March 31, 2017. The plan positions the automotive, mobile, and EHII markets as core markets in which the Company should focus its efforts. By bolstering profitability and further enhancing corporate value under this plan, Alps Electric aims to become a company that can realize sustained growth.

■ Overview and Progress of the 8th Mid-Term Business Plan

Vision	Aiming to Become a Company That Can Achieve Sustained Growth	
Strategies	Profit	Break dependence on smartphones and increase profit through dual pillars of smartphone and automotive businesses

Business Establish the EHII businesses and expand automotive device business to take the place of smartphones in the future

GT510

Net Sales of ¥500 billion
Operating Income Margin of 10%

Targets	Initiatives
Achieve net sales of ¥300 billion in the automotive market	<ul style="list-style-type: none"> ■ Increase profits from modules ■ Expand the device product lineup
Achieve net sales of ¥200 billion in the mobile market	<ul style="list-style-type: none"> ■ Retain and build on our position as primary supplier ■ Develop business targeting new mobile devices (PCs, wearable devices, virtual reality devices, drones, etc.)
Build foundations to realize net sales of ¥60 billion in the EHII markets	<ul style="list-style-type: none"> ■ Build foundations looking ahead to the 9th Mid-Term Business Plan ■ Expand sales of products with high added value ■ Expand open innovation through collaboration with other companies

Progress of the Plan as of March 31, 2018

Net Sales ¥514.0 billion / Operating Income Margin 10.3%

In fiscal 2017, our sales in the automotive market grew 10.6% year on year, to ¥283.2 billion, demonstrating steady progress toward our goal of generating sales of ¥300.0 billion in this market. In line with our goal of increasing profits from automotive modules, we are continuing with Companywide initiatives to build "dual pillars of profit"—the combination of said modules and the smartphone business.

In the consumer market, which includes smartphones, sales surged 27.1%, to ¥230.8 billion. Working toward the objective of

Key Initiatives Going Forward

The markets in which we operate are in a major state of flux. In the mobile market, smartphones have been experiencing growth over the past several years, but this expansion is expected to level off going forward. The automotive market, on the other hand, is experiencing an acceleration in CASE (connected, autonomous, shared & services, and electric) activities. In addition to automakers, companies in a host of other fields are adopting this CASE mind-set, spawning what we see as a once-in-a-century revolution.

Alps Electric is working to further improve earnings in modules for the automotive market, as well as increasing its share of the market for such devices. In the mobile market, we are accelerating equipment depreciation in line with the short product life cycle for smartphones, reflecting the reality of the business. We are also curtailing fixed costs

achieving ¥200.0 billion in sales in the mobile market, we retained our position as a primary supplier of camera actuators for smartphones and are increasing our number of customers. Adoption of HAPTIC™ in new virtual reality equipment and gaming consoles is rising steadily, and we expect growth to continue. As a result of these activities, in fiscal 2017 we generated net sales of ¥514.0 billion and operating income of ¥52.9 billion, reaching our GT510 targets one year early.

by making the most of existing equipment, developing new products, and seeking to retain and build on our position as a primary supplier of high-performance products. These efforts embody a shift in focus from quantity to quality. While pursuing "dual pillars of profit" in the automotive and mobile markets, in the automotive market we are focusing product development on the CASE domain as we pursue initiatives to increase future business. In business targeting the EHII markets, we will strive to quickly establish a business foundation through ongoing proposal activities involving the entire Alps Group and business alliances with other companies. We are also moving forward with various initiatives to expand production systems in Japan and overseas, as well as to improve productivity.

■ Risks and Opportunities

Risks are diversifying due to business globalization, technological advancements, and other factors. To address these risks, it is vital that the Alps Electric Group averts risks affecting its future and that it anticipates dangers and losses that could potentially occur and take steps to avoid them or, if they cannot be avoided, minimize the damage caused. Given recent debate about the value that corporations bring to society, the Group needs to strengthen management and operational foundations that support legal compliance and appropriateness of management and the execution of business affairs. With economic uncertainty growing throughout the world, management is called on more than ever to pursue optimal risk management.

Our 8th Mid-Term Business Plan positions risk management as the basis for a style of management and business operations that enables sustained business growth and enhanced corporate

value over the medium to long term; in other words, a foundation for growth-oriented management. At our monthly Board of Directors' meetings, we monitor risk levels. We call on outside directors for advice, and we check the appropriateness of risk management in individual departments on a semiannual basis. We also convene the Risk Control Committee, as necessary, to deliberate necessary countermeasures. In this manner, we take a detailed management approach to address individual risks.

In fiscal 2017, we achieved the GT510 business objective of our 8th Mid-Term Business Plan one year early. To sustain these results, we will step up efforts to achieve earnings capabilities in our priority markets: automotive, mobile, and EHII. At the same time, we will continue working to manage diverse risks appropriately and move resolutely forward with our business operations.

Major Risks, Opportunities, and Initiatives during the Period of the 8th Mid-Term Business Plan

	External and environmental causes	Internal causes
Management-related risks	<p>Risks</p> <ul style="list-style-type: none"> ■ Environment ■ Aging populations in developed countries ■ Labor shortages ■ Economic trends and exchange rate fluctuations ■ Reinforcement of laws, rules, and regulations <p>Opportunities and initiatives</p> <ul style="list-style-type: none"> ■ Expansion of environment-related business ■ Productivity improvements ■ Workstyle reforms ■ Hedging of foreign exchange risk ■ Thorough compliance 	<p>Risks</p> <ul style="list-style-type: none"> ■ Transparent, fair, swift, and decisive decision-making <p>Opportunities and initiatives</p> <ul style="list-style-type: none"> ■ Enhancement of corporate governance ■ Division of supervision and execution ■ Increase in number of and utilization of outside directors ■ Response to gender diversity ■ Thorough compliance education
Business-related risks	<p>Risks</p> <ul style="list-style-type: none"> ■ Fusion of industries ■ Automotive technical innovation ■ Commoditization of smartphones ■ Rapid demand shifts <p>Opportunities and initiatives</p> <ul style="list-style-type: none"> ■ Creation of Group synergies ■ Response to CASE ■ Expansion of EHII and move away from smartphones ■ Enhanced SCM and shorter lead times 	<p>Risks</p> <ul style="list-style-type: none"> ■ Development delays ■ Excessive investment ■ Increases in break-even point ■ Quality-related issues <p>Opportunities and initiatives</p> <ul style="list-style-type: none"> ■ Enhanced development capabilities and greater speed ■ Appropriate investment decisions ■ Improvements in business quality ■ Collaboration and alliances ■ Elimination of quality issues
Work-related risks	<p>Risks</p> <ul style="list-style-type: none"> ■ Globalization of business ■ Tightening of regulations ■ Credit management <p>Opportunities and initiatives</p> <ul style="list-style-type: none"> ■ Response to individual countries' laws and regulations ■ Reinforcement of Group governance ■ Thorough credit management 	<p>Risks</p> <ul style="list-style-type: none"> ■ Labor management ■ Working hours ■ Misconduct ■ Information leaks <p>Opportunities and initiatives</p> <ul style="list-style-type: none"> ■ Expanded education and training ■ Utilization of teleworking ■ Reinforcement of internal controls ■ Thorough information security

Aiming to Maximize Future Cash Flows through Enhanced ROIC Management and Proactive Investment in Growth Areas

Yoichiro Kega

Director
General Manager, Corporate Planning, Export & Import Administration
General Manager, Administration Headquarters



■ Business Growth and Financial Indicators

The Alps Group comprises three business segments: Electronic Components (core company: Alps Electric Co., Ltd.), Automotive Infotainment (core company: Alpine Electronics, Inc.), and Logistics (core company: Alps Logistics Co., Ltd.). In fiscal 2017, the Alps Group recorded on a consolidated basis net sales of ¥858.3 billion and operating income of ¥71.9 billion (operating income margin of 8.4%), the highest-ever levels achieved. In fiscal 2018, we forecast net sales of ¥879.0 billion and operating income of ¥66.0 billion (operating income margin of 7.5%) on a consolidated basis.

In fiscal 2017, Alps Electric, the core company of the Electronic Components Segment, delivered segment net sales of ¥514.0 billion and operating income of ¥52.9 billion (operating income margin of 10.3%). With these results, we achieved the targets of GT510, the 8th Mid-Term Business Plan (segment net

sales of ¥500.0 billion and an operating income margin of 10%), one year early. This performance also corresponded to record-high net sales and operating income in the Electronic Components Segment.

Aiming to be a company that can realize sustained growth, we position the operating income margin, the equity ratio, free cash flows, ROIC, and inventory turnover period as important financial indicators from the standpoint of enhancing corporate value and strengthening our financial structure. Although we expect proactive efforts to accelerate depreciation on capital investment during fiscal 2017 to suppress income in fiscal 2018, we forecast segment net sales of ¥510.5 billion and operating income of ¥47.0 billion (operating income margin of 9.2%), with the aim of further increasing the operating income margin.

■ Approach to Investment in Growth Areas

In fiscal 2017, total R&D expenses for the Alps Group amounted to ¥29.7 billion, with R&D expenses amounting to ¥19.5 billion in the Electronic Components Segment. In this segment, we promoted product development in the automotive and mobile markets. At the same time, amid a slowdown in smartphone market growth, we promoted the development of business in new markets targeting EHII (energy, healthcare, industry, and the IoT). Going forward, we will focus efforts on product development in the CASE domain within the automotive industry while promoting management integration with Alpine Electronics to secure future business.

In addition, total capital expenditures in fiscal 2017 amounted to ¥76.1 billion for the Alps Group and ¥61.2 billion in the Electronic

Components Segment. We are conducting capital expenditures aimed at ensuring quality that will satisfy customers and achieving cost reductions after comprehensive determination of assumed risks and effects of investment. In fiscal 2017, we aggressively made growth-oriented investments in component products focused on camera actuators for smartphones with the aim of developing, rationalizing, and increasing the manufacture of new products. We have worked to expand business through up-front investment in preparation for the commoditization of smartphones. Now, we will endeavor to make these investments available for more general purposes and leverage these investments to the fullest, thereby recovering our investment and bolstering earnings.

■ ROIC as a Management Indicator

The Alps Group aims for ROIC of 10% or higher as a guide for management. The Group's ROIC is calculated with profit attributable to owners of parent in the numerator and equity capital plus interest-bearing debt (invested capital) in the denominator.

We are engaged in maximizing the profit attributable to

ROIC Management Aims

$$\text{ROIC} \quad (\text{Target } 10\% \text{ or higher}) = \frac{\text{Profit attributable to owners of parent}}{\text{Invested capital}} \quad (\text{Equity capital + interest-bearing debt})$$

owners of parent numerator and improving profitability, while enhancing equity capital and reducing interest-bearing debt in the invested capital denominator, with the aim of improving the balance sheet.

In fiscal 2017, the Alps Group's ROIC was 12.7%.

- ▶ ■ Improve profitability
- Maximize profit attributable to owners of parent
- ▶ ■ Enhance equity capital and reduce interest-bearing debt
- Improve balance sheet

■ Improvement of Free Cash Flows

In finance, I recognize that securing cash is my main objective. The Group's basic stance is to maintain a stable dividend policy that takes into consideration a balance between returns to shareholders and internal reserves for future growth. To this end, in addition to securing cash equivalent to annual dividend forecasts, we aim to generate the cash necessary for capital expenditures required to enable sustainable growth, as well as for R&D.

As a general rule, we conduct investments within the scope of depreciation and amortization. However, we carry out investments in amounts that exceed this scope for businesses within our portfolio that we classify as "growth" and "cultivation" businesses. The Alps Group generated free cash flows of ¥3.6 billion

■ Initiatives in Fiscal 2018

In the Electronic Components Segment, we will attempt to shift toward CASE + Premium HMI in the automotive market. In addition to working to improve profitability, we will promote the standardization of products amid the ongoing commoditization of component products to strengthen our ability to respond to costs. As for mobile market products, we will pursue efficient investment, launch highly versatile equipment, and attempt to conserve labor and energy to respond flexibly to fluctuations in scale. In particular, with regard to products that require vertical launch and mass simultaneous provision, we must predict the

■ Profit Allocation

Regarding the Alps Electric approach to profit allocation, based on the Electronic Components Segment's consolidated profit, our basic policy is to (1) return profits to shareholders, (2) allocate funds to R&D and capital investment for future business development and enhanced competitiveness, and (3) retain profit internally. We determine profit allocation in consideration of a balance of all three elements with respect to internal reserves. In accordance with this policy, a dividend distribution was resolved at the Ordinary General Meeting of Shareholders to pay a year-end dividend out of surplus of ¥20 per share for fiscal 2017,

in fiscal 2016 and in fiscal 2017, a level that was less than in other years due to aggressive capital investment aimed at expanding scale in excess of market growth.

Further, in the Electronic Components Segment, we are pursuing matrix management by organizational function (including sales, engineering, production, quality, and management) and product line and have established targets for each. In terms of organizational functions, we established management indicators for each organization as a KPI tree and are engaged in raising ROIC through these measures. As for product lines, we monitor cash flows for each product line on a quarterly basis and aim to generate cash flows from each line.

timing of production and provision to establish a more efficient production system. Regarding products for emerging EHII markets, we will promote various collaborations and alliances as well as joint industry-university cooperative development efforts to increase development efficiency and realize the speedy implementation of initiatives. To support these efforts as an administrative department, we will further strengthen various types of resource planning as well as initiatives by back-office divisions aimed at improving our business performance.

taking into overall consideration our financial performance, financial position, and shareholder expectations for dividends.

Further, we plan the following dividend distributions in fiscal 2018.

Planned Dividend per Share in Fiscal 2018 (Alps Electric)	
Interim dividend	¥25
Year-end dividend	¥25
Total	¥50

Automotive Market

By further strengthening the automotive product technologies that we have long cultivated, we will pursue the development of new products that provide safety and peace of mind in an effort to bolster profitability.



Awareness of the Business Environment and Review of Initiatives Implemented in Fiscal 2017

Overall, the global automotive market was robust, centered on Europe and China, despite a year-on-year downturn in the United States. Against this backdrop, automakers stepped up activities in the CASE domain, including the development of autonomous vehicles. This situation spurred further increases

in demand for onboard electronics. Overall, performance was robust for automotive modules, such as electronic shifters and door modules, and automotive devices, including Bluetooth®, W-LAN, and LTE-enabled high-frequency communications products, and sensors.

Key Initiatives in Fiscal 2018

We will strive to improve profitability in automotive modules and work to boost our share of the market for automotive devices. As a result, we plan to stabilize the business and generate the

resources to develop next-generation products, enabling us to develop competitive new products in the CASE domain.

Automotive Modules

To improve the usability of air conditioners and audio devices, starting with small electronic shifters, we are moving forward with the development of touch panel modules, HAPTIC™ touchpads, and capacitive steering wheel switches. We are also developing ultrashort-range, millimeter-wave radars to ensure that automatic driving systems are able to detect oncoming vehicles, people, and obstacles to the greatest extent possible. Furthermore, we are endeavoring to add value and respond to demand in the CASE domain by pursuing integration and multifunctionality, as well as employing advanced technologies.

At the same time, we have positioned improvements in productivity as an important initiative and are promoting the use of common materials and parts and the standardization of design and development processes. In these ways, we are maintaining and ensuring high levels of quality and working to boost profitability.

Medium- to Long-Term Vision

The 8th Mid-Term Business Plan sets net sales of ¥300.0 billion as our target in the automotive market. To enhance profitability, we are working to improve productivity, centered on automotive modules, and bolster our share of the market for automotive devices.

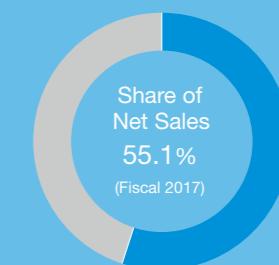
As the automotive business shifts its focus to the CASE domain, demand for parts for conventional internal combustion engines is likely to decrease. Meanwhile, automakers are working to differentiate themselves by offering cockpit and interior designs that stimulate a feeling of ownership, particularly for mid-range and high-end vehicles, and through driver support systems.

Automotive Devices

As communication between vehicles and transportation infrastructure, such as intelligent transportation systems (ITSs), is an important part of autonomous driving, we are stepping up our development of high-frequency products that utilize our core connectivity technology and expanding our product lineup.

We are also addressing the issue of complex vehicle operation for drivers by applying HAPTIC™ technology to the automotive sector and developing integrated control devices. At the same time, we are promoting research on and the development of products that are necessary for hybrid vehicles, plug-in hybrid vehicles, electric vehicles, fuel cell vehicles, and other next-generation vehicles, all of which are expected to become more commonplace.

Alps Electric and Alpine Electronics call products in this domain "Premium HMI," for "human-machine interface." Along with the CASE domain, we believe Premium HMI is a growth domain. Against this backdrop and with the launch of Alps Alpine Co., Ltd., on January 1, 2019, we will strengthen each company's business in existing products. We will also leverage the companies' combined technologies, customer channels, and resources to create new products that will be competitive in the CASE + Premium HMI growth domain and strengthen development activities.



FOCUS

Developing Advanced Driver Assistance Systems (ADASs) and a Product Lineup to Embrace the Future of Autonomous Driving

We have taken the industry lead by starting to mass-produce V2X modules. Looking to the future of autonomous driving, these high-frequency devices facilitate vehicle-to-vehicle (V2V) communications, as well as communications between vehicles and transportation infrastructure, such as traffic signals. Alps Electric has developed a proprietary module design that we believe will help reduce traffic accidents.

In April 2018, we won the Innovation Award from General Motors Company in GM's 26th annual Supplier of the Year awards. This accolade recognizes our ultrashort-range radar technology for use in ADASs and autonomous vehicles.

The award was set up in 2015. In 2018, it was presented to four GM suppliers from around the world, including Alps Electric.

Alps Electric will continue focusing on the development of products in the CASE domain.



V2X Communication Module

MESSAGE

Bolstering Profitability through Productivity Improvements and the Development of New, Next-Generation Products

In fiscal 2017, ended March 31, 2018, sales in the automotive market accounted for more than 50% of total sales in the Electronic Components Segment. As the significance of the automotive market for our overall business is growing, we have set a target for net sales in the automotive business of ¥300.0 billion within the 8th Mid-Term Business Plan and are currently promoting a wide variety of initiatives under the slogan AUTO 300.

For product development, we are proactively applying the various technologies we have cultivated in the consumer device field, such as capacitive technologies, which have a solid track record of use in smartphones and PCs, and HAPTIC™, which is primarily used in virtual reality (VR) gaming devices. We will also leverage our core technologies to create high-value-added products, including high-frequency communications products that contribute to automatic driving as well as sensors that help improve vehicle fuel performance.

Meanwhile, to boost profitability within our business structure, which entails the production of multiple brands in small quantities and at multiple locations, we will promote Companywide activities on a variety of fronts: bolstering global collaboration, improving productivity, and eliminating quality-related issues.

In a robust market environment, we will work toward our AUTO 300 goal with an ongoing sense of urgency. We will also strive to raise profitability through business stability and by generating development resources for next-generation products. On this basis, we will combine our strengths with those of Alpine to develop competitive new, next-generation products in the CASE domain, as well as Premium HMI products. By doing so, we will diligently strive to meet automakers' expectations and contribute toward safe and comfortable driving experiences.

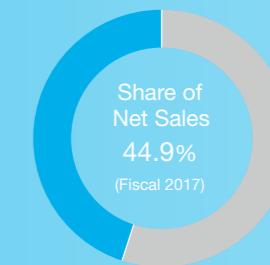
Hiroyuki Sato

Director
General Manager, Automotive Modules
Deputy General Manager, Engineering Headquarters



Consumer Market

We will steadily pursue opportunities to incorporate new demand by promptly supplying products that meet customer needs.



Mobile, Gaming, and Digital Devices

Awareness of the Business Environment and Review of Initiatives Implemented in Fiscal 2017

The smartphone market, which has enjoyed high rates of growth over the past several years, has now passed its peak and is trending downward. Nevertheless, the market is large and has an ongoing presence. In addition, the market for VR-enabled gaming consoles has grown.

At the beginning of fiscal 2017, the mobile market was characterized by strong demand for smartphone camera

actuators. Despite deceleration in some regions toward the end of the fiscal year, this demand was up year on year. Meanwhile, demand for switches and other components was also steady. HAPTIC™ remained strong in response to robust demand for VR equipment in the gaming console market, and we worked to expand sales in various other markets.

Key Initiatives in Fiscal 2018 and Medium- to Long-Term Vision

Responding to the leveling off in unit sales of smartphones, in fiscal 2018 we will endeavor to make the most of existing equipment in an effort to ensure profitability. We will also continue efforts to develop new products that meet demand for higher

camera quality and cameras with compound lenses and expand sales. We will also work to increase sales of products that showcase our strengths, such as switches and other components, sensors, and HAPTIC™.

EHII

Awareness of the Business Environment and Review of Initiatives Implemented in Fiscal 2017

Products that make use of IoT and AI are profoundly changing society and industries. In response, developed countries are mounting innovative initiatives to leverage big data analytics. In light of this trend, information technologies and electronics are becoming more important to a variety of industries, such as manufacturing, agriculture, and medical care.

In fiscal 2017, in the energy field we collaborated with a leading European company on the development of current sensors for smart distribution boards and moved forward on a project in the electric power IoT field with a South Korean electric utility provider. In addition, we commenced shipping of energy storage systems for household use. We are also promoting business

development supported by product development that utilizes Alps Electric's unique Liqualloy™, a magnetic amorphous material.

In the IoT field, we worked with Alps System Integration Co., Ltd., a subsidiary, to ascertain needs and cultivate new demand for products based on IoT smart modules that combine various sensors and high-frequency communications components into a single package. At the moment, these modules are being used for a variety of purposes, including to manage office building environments and conduct preventive maintenance of facilities, monitor the operational status of production lines, control various conditions at distribution warehouses, and utilize ICT in the agriculture industry.

Key Initiatives in Fiscal 2018 and Medium- to Long-Term Vision

In fiscal 2018, we will move forward with ongoing projects in the energy field and work to develop superior new products that use our proprietary materials. In the IoT field, we anticipate diverse applications in a variety of areas, including healthcare and industry. In partnership with IT and other companies, we will pursue proposals and applications for IoT smart modules and expand sales by combining them with components for which we have a track record.

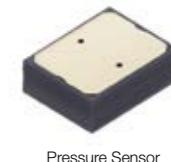
Alps Electric is positioning the EHII markets as a new pillar of business to follow on from the smartphone market. This business is broadening out into a host of markets and areas. By using our core technologies to develop unique products and collaborating and allying ourselves with other companies, we will actively lay the business foundations to achieve net sales of ¥60.0 billion.

FOCUS

Achieving Industry-Leading Levels of Power Efficiency and Sensing Precision

Smartphones and other mobile devices are being used in an increasingly large range of areas, such as navigation and health management, and to store sports data. Pressure sensors detect altitude, providing information about stairways and slopes; accelerometers detect speed and direction of travel; and illuminance sensors detect brightness. The market is calling for such sensors that are more power efficient and compact.

Alps Electric is using its design and manufacturing technologies to develop voltage sensors that consume only 1.8µA of current. By revising the internal structure of these sensors, we have succeeded in reducing their footprint by 20%, allowing the sensors to be mounted in smaller spaces.



Pressure Sensor

MESSAGE

Building a Foundation to Turn EHII Markets into a New Business Pillar

With the smartphone market becoming increasingly commoditized, in a number of ways we are preparing to establish the EHII markets as a new business pillar for the Company. In the energy field, we are pursuing joint business development with the South Korean government and companies in Germany and other countries. In 2016, we conducted an absorption-type merger with our subsidiary, Alps Green Devices Co., Ltd., to accelerate product development efforts. In healthcare, we are collaborating with academia in developing physiological sensor modules. In the IoT field, we are working with a telecommunications company to deploy IoT smart modules at construction and agricultural sites. In addition to a steady stream of successes in individual markets, we are proactively exhibiting products at Japanese and overseas trade shows and proposing products and applications that appeal to our technological superiority. In these ways, we are moving from demand cultivation and market development to sales expansion.

As part of our approach to enhancing our business in these markets, we are promoting *shimidashi*—“trickle-out” product development—based on our core technologies. Meanwhile, we are moving forward with the swift development of new products, collaborative business development with other companies, and the pursuit of open innovation. In doing so, we are advancing the creation of a foundation that will allow us to reach an annual net sales target of ¥60.0 billion in the EHII businesses.

Takeshi Daiomaru

Director
General Manager, New Business & Consumer Modules
General Manager, Components
Deputy General Manager, Engineering Headquarters



Transforming Ourselves into a “T-Shaped Company” in Preparation for the CASE Era

In January 2019, Alps Electric and Alpine plan to undergo a business integration. Meanwhile, the automobile industry is expected to begin a major transformation known as CASE (connected, autonomous, shared & services, and electric). Furthermore, a wide range of diverse customers and a variety of business models are expected to emerge in the energy, healthcare, industry, and IoT (EHII) markets. To be successful following this period of upheaval and transformation, we aim to leverage our companies' strengths by transforming ourselves into a “T-shaped company.” As a result, we intend to create more competitive new products and become a company capable of sustainable growth.

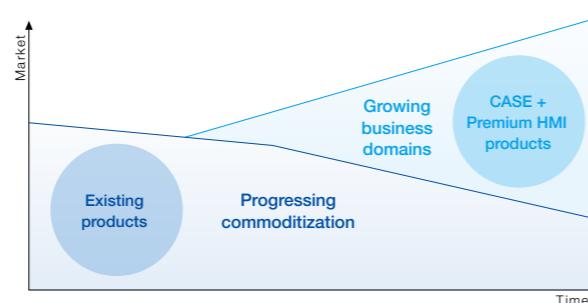
► Business Integration: Background and Objectives

Background: Automotive Industry Facing a Once-in-a-Century Period of Transformation, through CASE

The automobile industry faces a once-in-a-century period of transformation known as CASE, spanning four major technological innovations, combined with simultaneous market reforms. Consequently, automakers have begun to concentrate their development resources on the CASE domain. These manufacturers are moving forward with differentiation strategies—particularly for mid-range and luxury models—utilizing cockpit and interior design, as well as driving systems, to provide satisfaction through the joy and pride of ownership. Alps Electric and Alpine refer to the group of products in this domain as Premium HMI (human-machine interface) products.

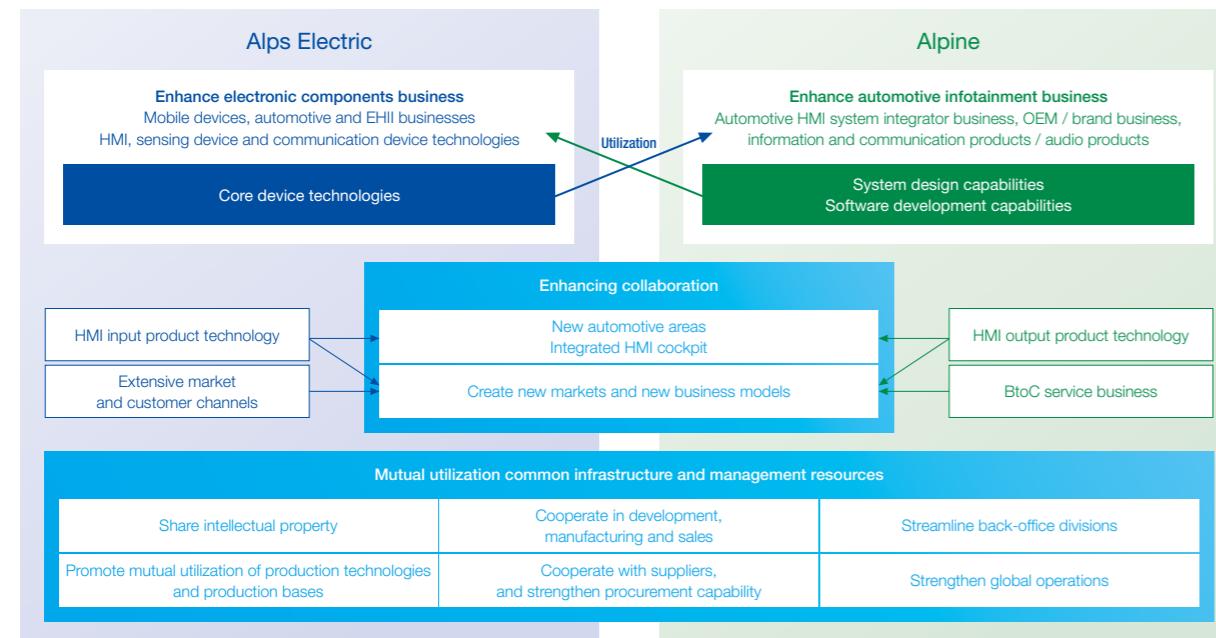
We expect little growth in the markets on which Alps Electric has concentrated to date, as automotive modules become commodities and demand for engine parts changes amid the shift toward hybrid and electric vehicles.

Conversely, we anticipate growth in the CASE and Premium HMI domains. Meanwhile, global IT companies have begun to enter the CASE domain, and development competition is growing more stringent.



Objectives: Create Competitive New Products by Sharing the Two Companies' Management Resources

Our principal objective is to create competitive new products in the CASE and Premium HMI domains, as well as the EHII markets, by enhancing the existing businesses of Alps Electric and Alpine and enabling the two companies to take mutual advantage of each other's technologies, customer channels, and resources.



► Our Post-Integration Goal: A “T-Shaped Company”

Through the business integration, we aim to become an “innovative T-shaped company” that combines the two companies' strengths. Alps Electric—which has worked to enhance its product capabilities by stepping up the development of core devices through the creation of electronic component technologies—might be referred to as a “vertical, I-shaped company.” Alpine, meanwhile, can be considered a “horizontal, I-shaped company” with expertise in incorporating a wide range of devices and technologies into systems. Through the business integration, we aim to transform ourselves into a “T-shaped company.”

New Business Models Leveraging the Superiority of a “T-Shaped Company”

Business Expansion in the CASE + Premium HMI Domain

As a result of the business integration, we expect not only to become a tier 1 supplier that offers integrated products—with Alps Electric making devices and Alpine supplying systems. Rather, in addition to proposing systems to automakers, we plan to extend Alps Electric's conventional components and functional device business to a wider range of tier 1 and tier 2 customers, acting as a tier 2 and tier 3 supplier.



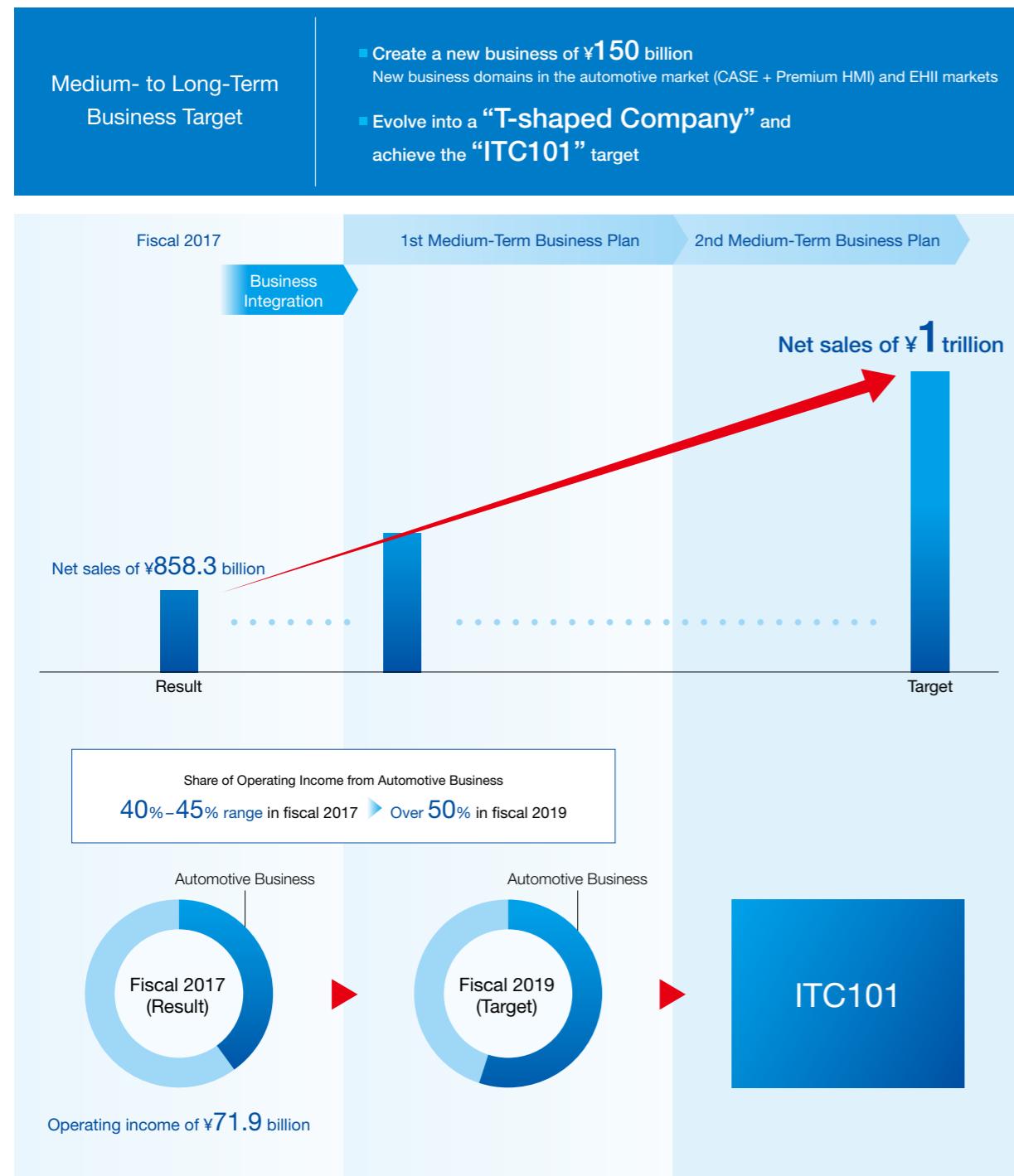
Business Expansion in the New EHII and IoT Domains

The EHII markets constitute a new domain for Alps Electric and Alpine. Given the diversity of customers and variety of business models these markets entail, rather than simply selling devices, we anticipate the need to provide a broader range of services, including cloud services, big data analysis and processing, and various services for end users. We will meet this need by leveraging Alpine's system software and service business. This business integration will take us beyond the automotive business and into the new EHII domain, where we expect to showcase the superiority of a “T-shaped company” in providing devices, systems, and services, developing diverse businesses in response to customers' needs.



► “ITC101,” Our Post-Integration Medium- to Long-Term Target

After our transformation into a “T-shaped company,” we have set a target we refer to as “ITC101,” short for “an innovative T-shaped company with a 10% operating income margin and ¥1 trillion in net sales.” We aim to achieve this goal during the period of our 2nd Medium-Term Business Plan. Furthermore, we aim to contribute to society in the new automotive business domain of CASE + Premium HMI and in the EHII domain, which is expected to play a significant social role, as well as to become capable of sustainable growth.



► Business Integration: Progress and the New Management Structure

Progress with Business Integration

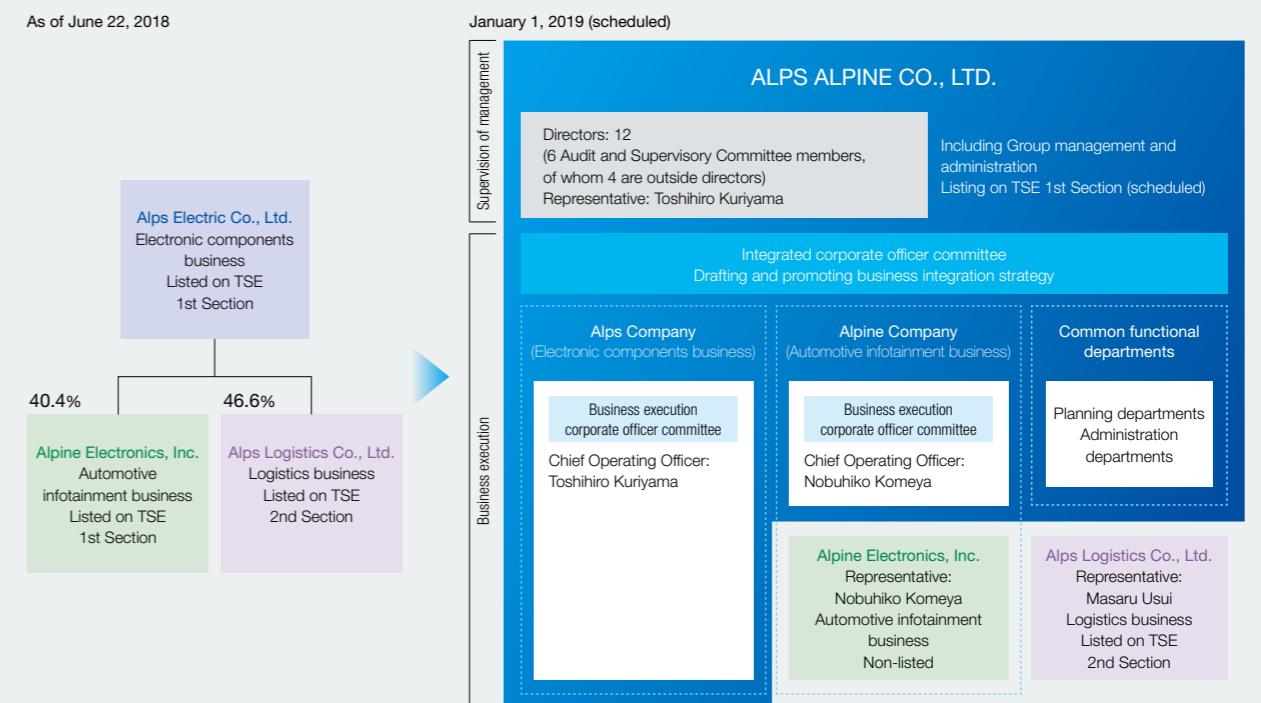
Under the basic agreement on business collaboration we concluded in July 2018, Alps Electric and Alpine are working toward business integration on January 1, 2019, by jointly promoting strategic products (sales and marketing), formulating a development road map for strategic products and promoting joint development activities (development), advancing the mutual use of production technologies and production bases (manufacturing), mutually using assessment and analysis equipment (quality control), and strengthening joint purchasing and enhancing the development purchasing function (procurement). By engaging in these activities ahead of the business integration, we aim to steadily leverage synergies between the two companies at an early stage.



Structure Following the Business Integration

Alps Alpine will be an operating holding company with an in-house company structure. As internal companies, we will establish the Alps Company to handle the electronic components business and the Alpine Company to spearhead the automotive infotainment business. While ensuring the autonomy of each business, we will introduce an executive officer system as a governance structure that separates management supervision and business execution. At the same time, we will promote stronger business integration by reinforcing business strategy functions in such shared areas as human resources, general affairs, accounting, legal and other administrative departments, as well as the planning department, which oversees management strategy and business strategy.

As of June 22, 2018



Directors of Alps Alpine Co., Ltd.

The composition of directors will change, from the 17 directors at the current Alps Electric to 12 (of whom six directors will be Audit and Supervisory Committee members), thereby enhancing the monitoring function. We will increase the number of outside directors from three to five (including two women), boosting the ratio of outside directors to at least one-third. Our aim is to enhance shareholder returns by increasing the number of independent, objective, and diverse perspectives through a new corporate governance system. (Please see page 45 for details.)



Sustainability of the Alps Electric Group

In terms of achieving sustainable growth, the Alps Electric Group not only focuses on business activities; it also responds to all issues that may affect the environment or society and conducts initiatives aimed at improving corporate value.

 Product Quality and Safety ▶ P33	<p>"Quality is our future." In line with this motto, we believe that the creation of superior and highly safe products raises customer satisfaction and leads to greater trust in Alps Electric, which is why we consider it to be of utmost priority in our operations. In addition to constructing a quality maintenance system for our product development and manufacturing processes, we have adopted a variety of measures to improve product quality and safety.</p>
 Intellectual Property ▶ P34	<p>We believe that the creation, maintenance, management, and utilization of intellectual property are business activities that contribute to sustainable growth for the Alps Electric Group. The Group is aiming to strengthen its own intellectual property in the core technologies and products that provide its foundation for business growth. We are also accelerating the creation and utilization of intellectual property through joint development and alliances with universities and other companies.</p>
 Procurement ▶ P35	<p>We focus on establishing trusting and collaborative relationships with our suppliers that are based on sincerity. When procuring materials and parts, we consider safety, the environment, and society and aim for sustainable development and growth throughout the supply chain.</p>
 Human Resources ▶ P35	<p>"Believe in people." This is our philosophy regarding human resources. We actively support employees who desire to take on challenges and personal development, and we work to enhance initiatives and create environments that encourage employees to grow into creative and independent professionals.</p>
 Environment ▶ P37	<p>Global environmental issues, such as global warming and abnormal weather events, seem to be reported in the news every day. The Alps Electric Group regards global environmental issues to be important management issues as well and carefully considers the effects that its business operations have on the environment. Accordingly, the Group is also developing various initiatives related to energy conservation, chemical substance management, waste reduction, and biodiversity.</p>

Activity Promotion Structure

The Alps Electric Group assigns a department to take charge of each CSR issue and is promoting related activities. These departments each discuss how the Group's current circumstances and vision connect to their respective CSR issues and conduct initiatives upon annually deciding on goals and measures that require attention. The Corporate Planning Office compiles CSR issues and activity results for each department and reports this information to the Board of Directors twice each fiscal year.

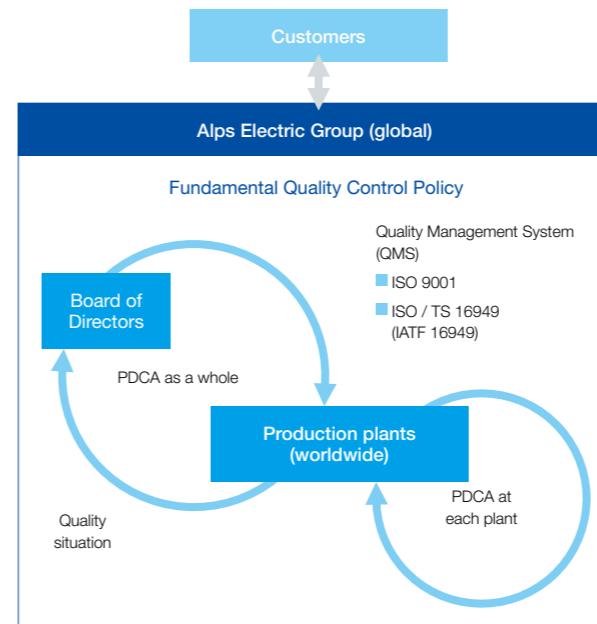


Product Quality and Safety

Quality Management System (QMS)

All production plants of the Alps Electric Group (including plants outside Japan) have acquired ISO 9001 certification. We have also acquired ISO / TS 16949 certification for plants manufacturing products for the automotive industry, and we are in the process of converting to compliance with IATF 16949, a new standard released in October 2016. We plan to acquire certification for this standard by September 14, 2018.

To support the development of new business fields for automobiles, we will conduct activities aimed at acquiring IATF 16949 certification for all production bases, both overseas and domestic.



Active Use of Quality Engineering (QE)

Quality problems, when they occur, lead to not only loss of trust but also huge adverse effects on earnings and subsequent efforts to capture and maintain business. Sometimes, once these problems arise, the damage is already done and any response is simply too late. Therefore, it is very important to prevent these problems before they happen.

One way the Alps Electric Group does this is through the active use of quality engineering (QE).

In the development and design stage, for example, we evaluate the stability of functions and optimize design parameters while envisaging the manner and environmental conditions in which the customer, or the market, will use the product in

order to improve product robustness.* In manufacturing, we apply QE concepts and methods to assess final product quality to enable the shipment of products with little variation in characteristics. These initiatives are undertaken at bases both in Japan and overseas.

We will step up efforts to prevent quality problems by utilizing QE right from development and design so that we can supply customers with products of a quality they will be satisfied with.

* Robustness: The degree to which a supplied product can perform its intended function under the various conditions customers might use it (methods of use, treatment, hot, humid, dusty, or other kinds of environments, etc.)



Functional Safety of Automotive Products

Safety requirements for products incorporated into vehicles are mounting due to the spread of technologies like driver assistance systems and autonomous driving systems. To ensure delivery to customers of safe, dependable products, the Alps Electric Group was quick to establish commercialization processes and systems conforming to ISO 26262 (which went into effect in November 2011) and has already developed numerous products compliant with the functional safety standard for automakers at home and abroad.

We aim to establish and foster a culture of safety so that employees involved with the development and production of automotive products put safety first in their decision-making and actions. Related activities are pursued in accordance with our functional safety guide.

The Group is continuously improving its activities related to the functional safety of products incorporated into vehicles. We achieve these improvements by regularly conducting comprehensive and reflective management reviews within the Board of Directors and by formulating and implementing annual action policies and priority measures.

Corporate policy in functional safety guide

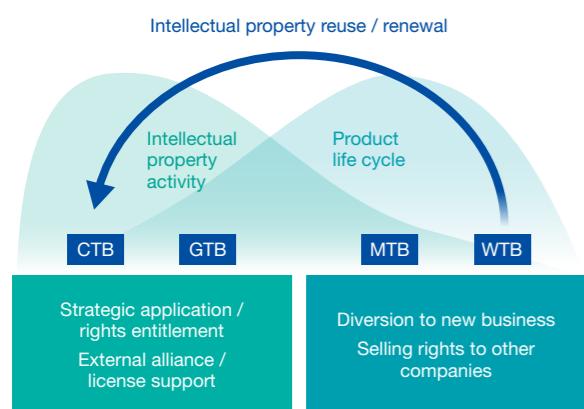
Every person in charge of automotive products has common sense on the value of safety culture and takes responsibility of organizational activities.

Intellectual Property

Alignment of Intellectual Property Activity with the Product Life Cycle

The Alps Electric Group divides the product life cycle for businesses and product groups, spanning stages such as introduction, growth, and maturity, into the creation period (Create the Business, or CTB), the growth period (Get the Business, or GTB), the maturity period (Maintain the Business, or MTB), and the end stage (Watch the Business, or WTB), and deploys different intellectual property strategies accordingly.

During the CTB and GTB stages, we make an effort to apply for and acquire patents through internal generation of intellectual property and also support activities involving outside parties, such as alliances and licensing. Moving into the MTB and WTB stages, we explore application of intellectual property to new businesses alongside consideration of withdrawal from the business. Working in conjunction with the product life cycle, we are engaged in activities to survive and secure growth opportunities amid rapid market changes.



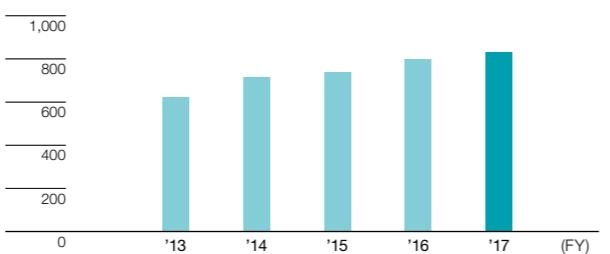
Efforts to Enhance Owned Intellectual Properties

From the initial stages of planning and developing a new product, the Group identifies the characteristics that the product in development will likely share with existing product groups and applies for basic intellectual property rights accordingly. At the same time, the Group is working to enhance its intellectual properties through overseas applications in accordance with trends in the market and in commercialization.

In addition, centered on the technologies that are used across the Group's multiple business domains, the Group holds strategic meetings between its technology and intellectual property divisions and conducts efforts in accordance with each stage of business creation in order to pursue Groupwide activities in such areas as establishing an intellectual property portfolio.

The Group is also continuing efforts to submit patent and other applications in Japan and overseas, with over 800 submissions made in fiscal 2017.

Number of Patent Applications (Alps Electric)



Promoting Discovery and Invention

At Alps Electric, we revised our Intellectual Property Regulations. To raise incentives for discovery and new inventions, we introduced a new award system in fiscal 2016.

One example of such an incentive is a system of granting the title of "Patent Fellow" to employees who display remarkable achievements in the field of invention. Patent Fellows contribute to the development of other inventors by passing on their acquired ideas, perspectives, and behaviors and therefore lead to further inventions and discoveries. In addition, this titling system works in conjunction with the personnel system, which further leads to the promotion of intellectual property activities.

Procurement

Response to Conflict Minerals

Human rights violations by armed elements in the Democratic Republic of the Congo and neighboring countries and the intensification of conflict due to armed groups being financed through the sale of minerals obtained in the region are major issues. In the United States, Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, which came into effect in January 2013, defines these minerals as "conflict minerals" and obligates corporations listed on U.S. stock exchanges to disclose information related to the use of conflict minerals in their products with the ultimate goal of eradicating the use of minerals that are "financing conflict."

Alps Electric, while not obligated by the act, understands and agrees with the purpose of the act from a human rights perspective and intentionally avoids employing as materials in its products conflict minerals that are used to finance armed forces from the Democratic Republic of the Congo or neighboring countries that engage in inhumane conduct.

Additionally, Alps Electric concurs with the philosophy upheld by the Japan Electronics and Information Technology Industries Association (JEITA) and has been participating in, and conducting activities with, JEITA's Responsible Minerals Trade Working Group since its establishment. The Company also conducts policy briefings for its suppliers each April in which it shares information regarding important matters and trends related to mineral procurement.

Response to Procurement Risk

The Alps Electric Group has set up international procurement offices (IPOs) to carry out procurement activities at production bases in 21 locations in nine countries: Japan, China, South Korea, Malaysia, Mexico, Ireland, Germany, the Czech Republic, and India, as well as in Taiwan and Hong Kong. Procurement entails obtaining at the right time the required volume of materials and parts that are superior in quality, cost, delivery, and environmental performance. It is therefore essential that the Group procures from suppliers it can trust. For that reason, the Group makes efforts to build trust-based relationships. The supply chain is also affected by natural disasters, accidents, labor disputes, bankruptcies, and other occurrences, with extensive repercussions for procurement activities as well as for such operations as logistics. The Group regularly updates its supply chain database and is currently establishing structures for globally centralizing information and responding in a timely manner when procurement risks do eventuate.

The Alps Electric Group continuously holds policy briefings with its suppliers. At these briefings, it requests supplier cooperation with its approach to addressing procurement risks. The Group believes that responding to such risks is not possible without the support of suppliers and it will continue efforts to strengthen that cooperation going forward.

Human Resources

Human Resource Cultivation Policy

The Alps Electric Group values employee self-development achieved through work and other efforts in the workplace. We conduct on-the-job-training (OJT) so that employees can fulfill career plans they created for themselves. This OJT is linked with evaluations, placement, and skills development and we implement it in pursuit of comprehensive and long-term employee development.

Employees can feel their own development when they interact with many people through their work, learn from and teach those people, and realize achievements. At the same time, we offer employees various opportunities to develop their skills in accordance with their current stages of development. Such opportunities include training and education geared toward skills and knowledge acquisition and personal development support measures.

By enhancing both practical (work) and theoretical (skills development measures) approaches, we facilitate the development of professional individuals and growth of organizations.

Human Resource Development System



Development-Oriented Rotation

Alps Electric has adopted a development-oriented rotation system aimed primarily at young employees who are in their first 10 years with the Company. By allowing these employees to experience several jobs and departments, this system aims to expand their scopes of duty, give them the ability to respond to the multifaceted natures of organizations and to various environmental changes, widen their networks within the Company, and provide them with a broad, heightened, and flexible perspective and awareness that enable them to break away from conventions. The development-oriented rotation that the Company pursues consists of the initial "I-shaped development stage," which reinforces and solidifies field-specific fundamentals that will function as a "pillar" for the employee, and the subsequent "T-shaped development stage," which promotes both the development of skills concerning related technologies and the acquisition of skills from peripheral technology fields.

Furthermore, this system is designed to enhance employee networks both internally and externally and to provide new perspectives, expertise, and knowledge that will be applicable moving forward through work experience in several departments. We believe that this system will be beneficial to all employees, not just the younger set.

Rotation Results in Fiscal 2017 (Alps Electric)

Participants*	461
Ratio**	7.8%

*1 Number of people who transferred between departments

**2 Out of all Company employees

Employee Systems

Alps Electric's employee systems are based on three basic philosophies: respect for humanity, selection of the very best, and personal development. These systems include a qualification system that makes different choices possible based on employee aptitude, ability, and enthusiasm and an incentive payment system based on employee positions and functions. Under these philosophies, we aim to employ diverse human resources, raise motivation, and create workplaces in which employees can display their abilities and work comfortably. To this end, we have introduced various measures, including hourly paid leave, relaxed restrictions on simultaneous employment, a system that allows employees to work shorter hours, telecommuting and teleworking for employees who meet certain requirements, a reemployment scheme, and the expansion of monetary qualification incentives.

Additionally, the Company has been promoting overtime work reduction and improvement in the annual paid leave utilization rate as part of its workstyle reforms. In fiscal 2017, overtime fell by 4.8% and the ratio of employees utilizing annual paid leave rose 4 percentage points compared with the previous fiscal year.

Diversity

Promoting Greater Involvement of Women

Alps Electric has long been providing equal opportunities for men and women, such as assignments and trainee programs overseas, management candidate training, and chances to receive training outside of the Company.

In new-graduate recruitment, the Company actively hires women for all positions, including engineering. We also aim to bring about a change in mentality among managers and even women themselves by, for example, establishing suitable working environments through the enhancement of programs that support the balance between work and childcare or nursing care and by implementing education and training programs.

As a result of these efforts, more female employees are achieving work-life balance and playing an active role even after they marry; within the Company, the average length of service among female employees is more than 20 years, and more than 60% are married.

Average Length of Service for Male and Female Employees (Alps Electric)*1

	2016	2017	2018
Male	20 yrs, 6 mths	20 yrs, 6 mths	20 yrs, 3 mths
Female	20 yrs, 9 mths	20 yrs, 6 mths	20 yrs, 0 mths
Overall	20 yrs, 7 mths	20 yrs, 6 mths	20 yrs, 3 mths

*1 According to our analyses, the decrease in average length of service is due to increases in the numbers of retirees and new hires. As of April 1 of each year.

Ratio of Women in Management Positions (Alps Electric)*2

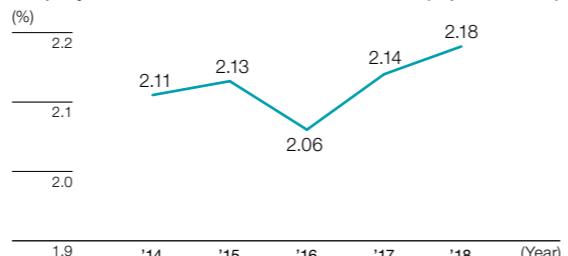
Item	2015	2016	2017	2018
Men in management positions (number)	376	363	370	378
Women in management positions (number)	4	6	8	8
Women in management positions (ratio)	1.1%	1.6%	2.1%	2.1%

*2 As of April 1 of each year

Employing Persons with Disabilities

Alps Electric is working to establish environments where all employees, with or without disabilities, can work with vitality and apply their capabilities to the fullest. Statutory employment rates have gradually been rising since April 2018 due to legal reforms in Japan. The Company will continue to improve working environments, expand employment opportunities, and meet statutory employment requirements.

Employment of Persons with Disabilities (Alps Electric)*3



*3 As of June 1 of each year

Employing Overseas Personnel—International Associates Program

The International Associates Program (IAP) recruits new graduates from overseas and employs them on two-year contracts at Alps Electric's headquarters in Japan. Employing around five people annually for over 20 years, the program has had nearly 100 participants to date from countries in Europe, North America, and Asia. After completion of the program, many participants stay on to work for the Alps Electric Group, including one employee who is still with us after more than 20 years.

In addition, former foreign exchange students now account for around 10% of the new graduates hired in Japan. These persons engage in wide-ranging jobs, for example, in design and development, manufacturing, sales, and accounting.



Environment

Climate Change Response

Climate change has a large impact on business, with weather events such as typhoons and floods disrupting production systems and fracturing supply chains. This phenomenon also has an enormous impact on our individual livelihoods by negatively affecting grain production and contributing to the spread of infectious diseases. The Alps Electric Group is responding to climate change issues by reducing energy consumption and converting to energy with low greenhouse-gas emissions. Additionally, we are producing green devices, including various types of sensor modules, such as current sensors and high-performance inductors.

Product Assessment at the Time of Development

The Alps Electric Group is developing many environmentally friendly products by conducting product assessments that determine environmental impact from the product development and design stage. We are adopting a variety of considerations into our product assessment. For example, we design products out of consideration for biodiversity conservation, reducing resource use by making our products smaller, thinner, and lighter. The Group also aims to reduce its environmental impact by conducting green material procurement and making products easier to separate and recycle. Furthermore, we are responding to global warming by cutting back on the amount of electricity used in manufacturing and streamlining our processes.

Fiscal 2017 Results

Item	Target	Applicable range	Result	Self-assessment
Global warming countermeasures at business facilities	Improve average annual energy consumption rate per unit by 1% by fiscal 2020 (reduce by 4.90% compared with fiscal 2012)	Alps Group	Consumption rate of 15.7 kJ per ¥100 million 21.5% reduction (improvement) compared with the base year	○
Global warming countermeasures in logistics	Improve annual energy consumption rate of domestic product distribution per unit by 1% by fiscal 2018 (reduce by 1.99% compared with fiscal 2015)	Alps Electric	Consumption rate of 0.53 kJ per ¥100 million 13.4% reduction (improvement) compared with the base year	○
Reduction of total waste output	Improve annual total waste output per unit by 1% by fiscal 2018 (reduce by 1.99% compared with fiscal 2015)	Alps Group	Output rate of 3.57 tons per ¥100 million 0.4% reduction (improvement) compared with the base year	△
Effective utilization of resources during design and manufacturing	(1) Improve material yield (2) Improve material straight pass rate	Alps Electric Group	(1) 17.5% above the monetary improvement target (2) 71.1% above the monetary improvement target	○
Reduction of water use	Improve annual water use per unit by 1% by fiscal 2018 (reduce by 1.99% compared with fiscal 2015)	Alps Electric Group	Use rate of 289.4 m³ per ¥100 million 14.0% reduction (improvement) compared with the base year	○
Sales expansion of environmentally friendly products	Promote expanded sales of environmentally friendly products	Alps Electric	Certain goals were not met due to customer circumstances, but results were generally in line with forecasts	○
Promotion of biodiversity conservation activities	Promote biodiversity conservation activities	Alps Electric	Conducted vegetation survey at Taira Plant in Fukushima Prefecture, Japan, and began dogtooth violet conservation activities based on survey results Participated in volunteer activities aimed at the conservation of nesting grounds of the little tern	○

Self-assessment: ○ Proceeding according to plan, △ Lagging

8th Medium-Term Action Plan for Environmental Preservation

Since fiscal 2016, the Alps Electric Group has been pursuing global warming countermeasures and other environmental preservation activities in line with the 8th Medium-Term Action Plan for Environmental Preservation.

As a manufacturer, the Group has added elements to the 8th Medium-Term Action Plan that will allow it to contribute more to environmental preservation in the areas of manufacturing and product development, namely, the improvement of material yield*1 and material straight pass rate,*2 to enable the effective utilization of resources and aggressive sales of environmentally friendly products. The 7th Medium-Term Action Plan sets targets for reducing energy consumption and waste production. To meet these targets, we are continuing with activities encompassing the entire Alps Group.

*1 Material yield: The value (theoretical value) reached by dividing the amount of raw materials constituting a product by the amount of raw materials needed to manufacture the product. The closer the value is to 1 the better. An important consideration is working out how to reduce the amount of items such as metal offcuts and plastic runners through innovation in product design and mold or die specifications.

*2 Material straight pass rate: The value reached by dividing the amount of raw materials theoretically needed by the amount of raw materials actually used in the process. The closer the value is to 1 the better. Important tasks with regard to reaching this value include reducing the amount of defects within the manufacturing process and reducing losses when switching production batches.

Summary of Key Management Indicators

Consolidated fiscal years started April 1

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
For the Fiscal Year: [Millions of yen]											
Net sales	692,656	538,995	493,639	550,668	526,500	546,423	684,362	748,614	774,038	753,262	858,317
Cost of sales	587,210	484,079	415,095	441,497	432,589	458,576	558,097	593,788	621,754	601,711	669,721
Gross profit	105,446	54,915	78,543	109,170	93,911	87,847	126,265	154,825	152,284	151,551	188,596
Selling, general and administrative expenses	85,569	81,440	73,800	80,299	78,740	80,996	97,736	101,291	99,956	107,177	116,688
Operating income (loss)	19,876	(26,524)	4,742	28,871	15,171	6,851	28,528	53,534	52,327	44,373	71,907
Operating income margin: [%]	2.9	(4.9)	1.0	5.2	2.9	1.3	4.2	7.2	6.8	5.9	8.4
Ordinary income (loss)	13,123	(23,305)	1,676	23,174	14,335	7,659	28,090	57,594	50,038	42,725	66,717
Profit (loss) attributable to owners of parent	4,418	(70,064)	570	11,136	4,175	(7,074)	14,311	34,739	39,034	34,920	47,390
Depreciation and amortization	37,771	29,942	21,223	18,710	19,759	21,572	24,527	28,010	30,725	33,076	36,004
R&D expenses	42,255	40,304	27,843	28,124	28,098	28,674	32,987	33,035	33,336	32,279	29,799
Capital expenditures	43,153	47,202	18,480	23,544	34,024	31,833	26,570	31,416	41,190	47,657	76,154
Operating cash flows	53,117	15,004	28,970	28,552	23,426	24,805	57,703	65,111	53,958	41,603	70,387
Investing cash flows	(15,072)	(49,065)	(19,532)	(20,941)	(29,358)	(32,101)	(22,813)	(29,772)	(30,383)	(37,981)	(66,722)
Financing cash flows	(37,292)	28,025	12,195	5,122	(6,691)	(5,654)	4,994	(27,951)	(36,340)	(309)	(2,957)
Cash and cash equivalents at fiscal year-end	79,178	68,325	88,722	98,495	85,004	76,137	122,237	134,298	116,843	117,991	120,778
Simplified free cash flows ^{*1}	38,045	(34,060)	9,437	7,610	(5,931)	(7,296)	34,889	35,339	23,574	3,621	3,665
At Fiscal Year-End: [Millions of yen]											
Total assets	494,755	375,285	410,945	427,529	442,052	451,416	512,365	570,482	562,856	602,961	671,799
Equity	193,853	111,127	112,705	115,469	115,434	116,817	137,482	179,522	228,496	254,501	301,176
Interest-bearing debt	73,087	104,401	116,399	119,947	118,510	124,468	134,364	116,200	54,335	63,272	70,420
Per Share Data: [Yen]											
Earnings per share (EPS)	24.65	(390.93)	3.18	62.14	23.29	(39.47)	79.85	193.81	206.64	178.25	241.91
Diluted EPS	22.32	—	2.74	—	—	—	79.68	177.12	197.73	178.20	241.82
Book-value per share (BPS)	1,081.63	620.04	628.85	644.24	644.03	651.72	767.01	1,001.55	1,166.41	1,299.11	1,537.37
Dividends per share (DPS)	20.00	10.00	0.00	20.00	20.00	5.00	5.00	15.00	25.00	30.00	37.00
Major Indicators: [%]											
Equity ratio	39.2	29.6	27.4	27.0	26.1	25.9	26.8	31.5	40.6	42.2	44.8
Debt to equity ratio ^{*2}	37.7	94.0	103.3	103.9	102.7	106.6	97.7	64.7	23.8	24.9	23.4
Interest coverage ratio ^{*3:} [Times]	38.0	15.7	18.5	14.8	14.1	17.7	49.2	68.0	50.4	81.6	91.2
Return on assets (ROA) ^{*4}	0.8	(16.1)	0.1	2.7	1.0	(1.6)	3.0	6.4	6.9	6.0	7.4
Return on equity (ROE) ^{*5}	2.2	(45.9)	0.5	9.8	3.6	(6.1)	11.3	21.9	19.1	14.5	17.1
Average exchange rates											
USD / JPY: [Yen]	114.28	100.54	92.85	85.72	79.08	83.10	100.24	109.93	120.14	108.38	110.85
EUR / JPY: [Yen]	161.53	143.48	131.15	113.12	108.98	107.14	134.37	138.77	132.58	118.79	129.70
Other											
Total number of issued shares ^{*6:} [Thousand shares]	181,559	181,559	181,559	181,559	181,559	181,559	181,559	181,559	198,208	198,208	198,208

*1 Simplified free cash flows = Operating cash flows + Investing cash flows

*2 Debt to equity ratio = Interest-bearing debt / Equity

*3 Interest coverage ratio = Operating cash flows / Interest expenses paid

*4 Return on assets (ROA) = Profit attributable to owners of parent / Average total assets

*5 Return on equity (ROE) = Profit attributable to owners of parent / Average equity

*6 The total number of issued shares includes treasury shares.

Performance by Business Segment

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
For the Fiscal Year: [Millions of yen]											
Net Sales											
Electronic Components	391,424	291,995	274,154	296,152	268,916	268,085	338,811	389,120	434,072	437,676	514,031
Automotive Infotainment	247,543	193,226	166,199	198,359	200,248	219,852	282,115	289,783	267,541	242,306	267,638
Logistics	53,687	53,773	44,977	47,505	47,999	48,554	52,282	57,062	60,251	61,150	64,666
Others			8,307	8,651	9,336	9,930	11,154	12,648	12,173	12,128	11,981
Operating Income											
Electronic Components	6,318	(20,062)	395	12,966	4,590	227	14,012	36,595	40,780	32,803	52,929
Automotive Infotainment	7,011	(10,645)	226	11,140	5,634	2,324	9,813	11,537	5,434	5,623	13,735
Logistics	6,439	3,982	3,496	3,840	3,709	3,586	4,140	4,457	4,857	5,083	4,932
Others			294	443	472	412	584	898	1,233	884	1,701

Note: Since fiscal 2009, the "Logistics and others" segment has been split into the "Logistics" and "Others" due to the change of reporting segments.

Directors (As of June 22, 2018)

President



Toshihiro Kuriyama

Apr. 1980 Joined the Company
Apr. 2004 General Manager, Magnetic Devices Division
Jun. 2004 Director
Apr. 2007 General Manager, Business Development Headquarters
Apr. 2009 General Manager, Engineering Headquarters
Engineering & Quality Management Executive
Oct. 2009 Component Products Business, MMP Division
Jan. 2010 Engineering Executive
Jun. 2011 Managing Director
Apr. 2012 General Manager, Engineering Headquarters
Jun. 2012 President, Chairman of the Board of Directors (present)

Senior Managing Director



Takashi Kimoto

General Manager, Sales & Marketing Headquarters

Apr. 1981 Joined the Company
Jul. 2006 Deputy General Manager, Sales & Marketing Headquarters
Jun. 2008 Director
Apr. 2009 General Manager, Automotive Division
Apr. 2010 European and American Business Executive
Apr. 2012 General Manager, Sales & Marketing Headquarters (present)
Jun. 2012 Managing Director
Jun. 2016 Senior Managing Director (present)

Director



Takeshi Daiomaru

General Manager, New Business & Consumer Modules
General Manager, Components
Deputy General Manager, Engineering Headquarters

Apr. 1981 Joined the Company
Apr. 2000 Senior Manager, Sales Dept. 1, Sales & Marketing Headquarters
Apr. 2005 General Manager, Global Sales & Marketing Operation, Sales & Marketing Headquarters
Jan. 2006 General Manager, Mobile Sales Operations, Sales & Marketing Headquarters
Apr. 2007 Seconded General Manager, Alps (China) Co., Ltd.
Apr. 2012 General Manager, Sales & Marketing Headquarters (of Alps Electric)
Apr. 2013 Deputy General Manager, Sales & Marketing Headquarters and General Manager, Global Sales & Marketing Operation
Jun. 2014 Director (present)
Officer in charge of New Business & Consumer Modules Division and Deputy General Manager, Engineering Headquarters (present)
Jun. 2018 Officer in charge of Components (present)

Director



Akihiko Okayasu

General Manager, Material Control
Production Headquarters

Apr. 1981 Joined the Company
Apr. 2004 Senior Manager, Sales Dept. 1, Sales & Marketing Headquarters
Apr. 2007 General Manager, Home & Mobile Sales Operation, Sales & Marketing Headquarters
Apr. 2009 General Manager, Sales Dept. 1, Home, Mobile & Industry Division
Jan. 2012 Seconded General Manager, Alps Electronics Taiwan Co., Ltd.
Jul. 2013 Seconded General Manager, Alps (China) Co., Ltd.
Jun. 2015 Director (of Alps Electric) (present)
Officer in charge of China Business
May 2016 Officer in charge of China Business and Material Control Executive, Production Headquarters and General Manager of Material Control
Jun. 2016 Material Control Executive, Production Headquarters and General Manager of Material Control, Production Headquarters
Feb. 2017 Material Control Executive, Production Headquarters (present)

Managing Director



Yasuo Sasao

General Manager, New Components
General Manager, Engineering Headquarters

Apr. 1983 Joined the Company
Apr. 2009 Deputy Officer in charge of Component Products Business, MMP Division
Jun. 2010 Director
Apr. 2012 General Manager, Component, Engineering Headquarters
Apr. 2013 Officer in charge of Component Business and Deputy General Manager, Engineering Headquarters
Jun. 2014 Officer in charge of Component Business and General Manager, Engineering Headquarters
Jun. 2015 Managing Director (present)
Jun. 2018 Officer in charge of New Components and General Manager, Engineering Headquarters

Managing Director



Yoshitada Amagishi

General Manager, Quality Management
General Manager, Production Headquarters

Apr. 1980 Joined the Company
Jun. 2007 General Manager, Peripheral Products Division (of Alps Electric)
Jun. 2008 Director
Apr. 2009 Deputy General Manager, Automotive Division
Jun. 2011 Engineering Executive
Quality Management Executive (present)
Apr. 2012 Officer in charge of Module Engineering Headquarters
Jun. 2012 General Manager, Module Engineering Headquarters
Apr. 2013 Officer in charge of New Business & Consumer Modules and General Manager, Engineering Headquarters
Jun. 2014 Quality Management Executive and Material Control Executive, Production Headquarters
May 2016 Quality Management Executive and Deputy General Manager, Production Headquarters
Jun. 2016 Managing Director (present)
General Manager, Production Headquarters (present)
General Manager, Production Innovation

Director



Tetsuhiro Saeki

General Manager, Information Systems
Deputy General Manager, Sales & Marketing Headquarters

Apr. 1983 Joined the Company
Apr. 2003 Managing Director, ALPS ELECTRIC CZECH, s.r.o.
Jul. 2009 Division Director, Production Planning, MMP Division (of Alps Electric)
Apr. 2012 Division Director, Production Planning, Production Headquarters
Mar. 2013 General Manager, Procurement Division, Production Headquarters
Jun. 2014 General Manager, Global Sales & Marketing Operation, Sales & Marketing Headquarters
Jun. 2016 Director (present)
Officer in charge of Information Systems and Deputy General Manager, Sales & Marketing Headquarters (present)

Director



Yoichiro Kega

General Manager, Corporate Planning, Export & Import Administration
General Manager, Administration Headquarters

Apr. 1984 Joined the Company
Apr. 2002 Senior Manager, Sales Dept. 4, Sales & Marketing Headquarters
Apr. 2004 Project Manager, Global Sales Dept., Sales & Marketing Headquarters
Jul. 2005 Business Planning Manager, Peripheral Products Division
Feb. 2007 Project Manager, Peripheral Products Division
Jan. 2009 Director and President, Alps Electric Europe GmbH
Oct. 2013 General Manager, Sales Planning Office, Sales & Marketing Headquarters (of Alps Electric)
Feb. 2015 General Manager, Corporate Planning Office
Jun. 2016 Director (present)
Officer in charge of Corporate Planning, Accounting and Finance, General Affairs and Environment and General Manager, Corporate Planning Office
Feb. 2017 Officer in charge of Corporate Planning, Accounting and Finance, General Affairs and Environment
Jun. 2018 General Manager, Corporate Planning, Export & Import Administration (present)

Director, Executive Adviser



Masataka Kataoka

Apr. 1972 Designed from Sharp Corporation
Joined the Company
Mar. 1981 General Manager, Kakuda Division
Jun. 1982 Director
Jun. 1985 Managing Director
Oct. 1986 Senior Managing Director
Jun. 1988 President, Chairman of the Board of Directors
Jun. 2012 Chairman
Jun. 2017 Executive Adviser (present)

(Status on major concurrent holding of positions)
Director, Alpine Electronics, Inc.
Director, Alps Logistics Co., Ltd.

Director



Hitoshi Edagawa

General Manager, Production Engineering
Production Headquarters

Apr. 1983 Joined the Company
Jun. 2008 Quality Management Executive
Product Engineering Executive
Apr. 2009 General Manager, Production Engineering Operations, MMP Process Division
Jun. 2011 Director (present)
Deputy Officer in charge of Production, MMP Process Division
Production Engineering Executive, MMP Process Division
Apr. 2012 Production Engineering Executive, Production Headquarters
Jun. 2013 Quality Management Executive and Production Engineering Executive, Production Headquarters
Jun. 2014 Production Engineering Executive, Production Headquarters (present)

Director



Hiroyuki Sato

General Manager, Automotive Modules
Deputy General Manager, Engineering Headquarters

Apr. 1985 Joined the Company
Oct. 2003 General Manager, Engineering Dept. 2, Automotive Products Division
Apr. 2006 General Manager, Engineering Dept. 3, Automotive Products Division
Apr. 2009 General Manager, Engineering Dept. 1, Automotive Division
Oct. 2010 General Manager, Development Dept., Automotive Division
Nov. 2011 President, Alps Electric (North America), Inc.
Jun. 2016 Director (of Alps Electric) (present)
Officer in charge of Automotive Modules and Deputy General Manager, Engineering Headquarters (present)

Director



Hideo Izumi

General Manager, Automotive New Business
Deputy General Manager, Engineering Headquarters

Apr. 1985 Joined the Company
Apr. 2006 General Manager, Engineering Dept. 2, Communication Device Division
Apr. 2009 General Manager, Engineering Dept. 2, HM&I Division
Apr. 2012 General Manager, M6 Engineering Dept., Engineering Headquarters
Feb. 2015 General Manager, M3 Engineering Dept. and M9 Engineering Dept., Engineering Headquarters
Jul. 2016 General Manager, M3 Engineering Dept., Engineering Headquarters
Feb. 2017 General Manager, Firmware Engineering Dept., Engineering Headquarters
Jun. 2018 Director (present)
Officer in charge of Automotive New Business and Deputy General Manager, Engineering Headquarters (present)

Directors (Audit and Supervisory Committee Members) (As of June 22, 2018)

Director
Member of Audit and Supervisory Committee



Junichi Umehara

Mar. 1987 Joined the Company
Sep. 2004 Deputy Officer in charge of Legal & Intellectual Property and Deputy Officer in charge of Corporate Export & Import Administration
Jun. 2006 Director
Jul. 2006 Officer in charge of Legal & Intellectual Property
General Manager, Corporate Export & Import Administration
Apr. 2009 Deputy General Manager, Administration Headquarters
Deputy General Manager, Engineering Headquarters
Officer in charge of Intellectual Property
Officer in charge of Legal & Intellectual Property
Apr. 2012 Officer in charge of Legal & Intellectual Property, Administration Headquarters
Jul. 2015 Officer in charge of Human Resource, Legal & Intellectual Property
Jun. 2016 General Manager, Administration Headquarters
Jun. 2018 Director (Audit and Supervisory Committee Member) (present)

Director
Member of Audit and Supervisory Committee



Yasuhiro Fujii

Apr. 1976 Joined the Company
Jan. 1998 Director and President, Alps Electric Europe GmbH
Jun. 2003 Director (of Alps Electric)
Apr. 2004 General Manager, Peripheral Products Division
Jul. 2007 Chairman of the Board of Directors, Alps Electric (North America), Inc.
Apr. 2008 President, Alps Electric (North America), Inc.
Apr. 2009 General Manager, European & American Business
Apr. 2010 General Manager, E Project Chairman, Alps Electric (North America), Inc.
May 2010 Representative President & CEO, Alps Green Devices Co., Ltd.
Apr. 2012 Quality Management Executive (of Alps Electric)
Jun. 2013 Full-time Audit & Supervisory Board Member
Jun. 2016 Director (Audit and Supervisory Committee Member) (present)

Director
Member of Audit and Supervisory Committee (Outside)



Takashi Iida
Attorney at Law

Apr. 1974 Registered as a Lawyer
Joined Mori Sogo Law Offices
(Currently Mori Hamada & Matsumoto)
Apr. 1997 Executive Governor, Japan Federation of Bar Associations
Apr. 2006 President, Daini Tokyo Bar Association
Vice President, Japan Federation of Bar Associations
Jan. 2012 Opened Kowa Law Office (present)
Jun. 2012 Outside Corporate Auditor, Shimadzu Corporation (present)
Jun. 2013 Outside Corporate Auditor, JAFCO Co., Ltd.
Outside Director of the Company
Jun. 2014 Outside Audit & Supervisory Board Member, NIPPON TELEGRAPH AND TELEPHONE CORPORATION (present)
Oct. 2015 Deputy Chairman, Gender Equality Bureau Cabinet Office Promotion and Liaison Committee (present)
Jun. 2016 Director (Audit and Supervisory Committee Member) (present)

(Status on major concurrent holding of positions)
Outside Corporate Auditor, Shimadzu Corporation
Outside Audit & Supervisory Board Member,
NIPPON TELEGRAPH AND TELEPHONE CORPORATION

Director
Member of Audit and Supervisory Committee (Outside)



Kazuya Nakaya

Apr. 1984 Joined Matsushita Kotobuki Electronics Industries, Ltd.
(Currently PHC Corporation)
Jun. 2006 Director and General Manager, Device Industry Business Group, Panasonic Shikoku Electronics Co., Ltd. (Currently PHC Corporation)
Jun. 2008 Representative Director, Managing Director in charge of Device Business
Jun. 2009 Representative Director, Managing Director in charge of Healthcare Business and Business Development
Jun. 2012 Representative Director, Senior Managing Officer in charge of Corporate Planning, Public Relations and Company-wide Operations, Panasonic Healthcare Co., Ltd. (Currently PHC Corporation)
Apr. 2014 Representative Director, Senior Managing Officer, Chief Technology Officer (resigned in September 2015)
Oct. 2015 Advisor, Healthcare Business Division, KONICA MINOLTA, INC.
Jun. 2016 Outside Member of the Board, Sharp Corporation
Jun. 2018 Director (Audit and Supervisory Committee Member) (present)

Director
Member of Audit and Supervisory Committee (Outside)



Yoko Toyoshi
Certified Public Accountant

Apr. 1981 Joined The Bank of Fukuoka, Ltd.
Oct. 1989 Joined Asahi Shinwa & Co. (Currently KPMG AZSA LLC)
Dec. 1990 Joined Deloitte Touche Tohmatsu (Currently Deloitte Touche Tohmatsu LLC)
Jul. 2008 Appointed partner, Deloitte Touche Tohmatsu
Jul. 2013 Certified Public Accountants and Audit Oversight Board, Financial Services Agency
Appointed Chief Certified Public Accountant Audit Inspector
Jul. 2016 Partner, Deloitte Touche Tohmatsu LLC
Jun. 2018 Director (Audit and Supervisory Committee Member) (present)

Corporate Governance

Approach to Corporate Governance

The Alps Group defines corporate governance as the "establishment and operation of frameworks for realizing efficient and appropriate decision-making and execution of duties by senior management, prompt reporting of outcomes to stakeholders, and sound, efficient, and transparent business administration for the purpose of heightening corporate value." Our basic approach, placing importance on maximizing benefits for shareholders and all other stakeholders, is to maximize corporate value and deliver benefits directly or indirectly to stakeholders in a balanced way, satisfying their respective interests.

Furthermore, in order to fulfill its responsibilities to stakeholders, including shareholders, customers, local communities, and employees, and to realize effective corporate governance as a business entity, the Company has established "Alps Electric Co., Ltd., Corporate Governance Policies" and disclosed the policies on the Company's website.

Corporate Governance Structure

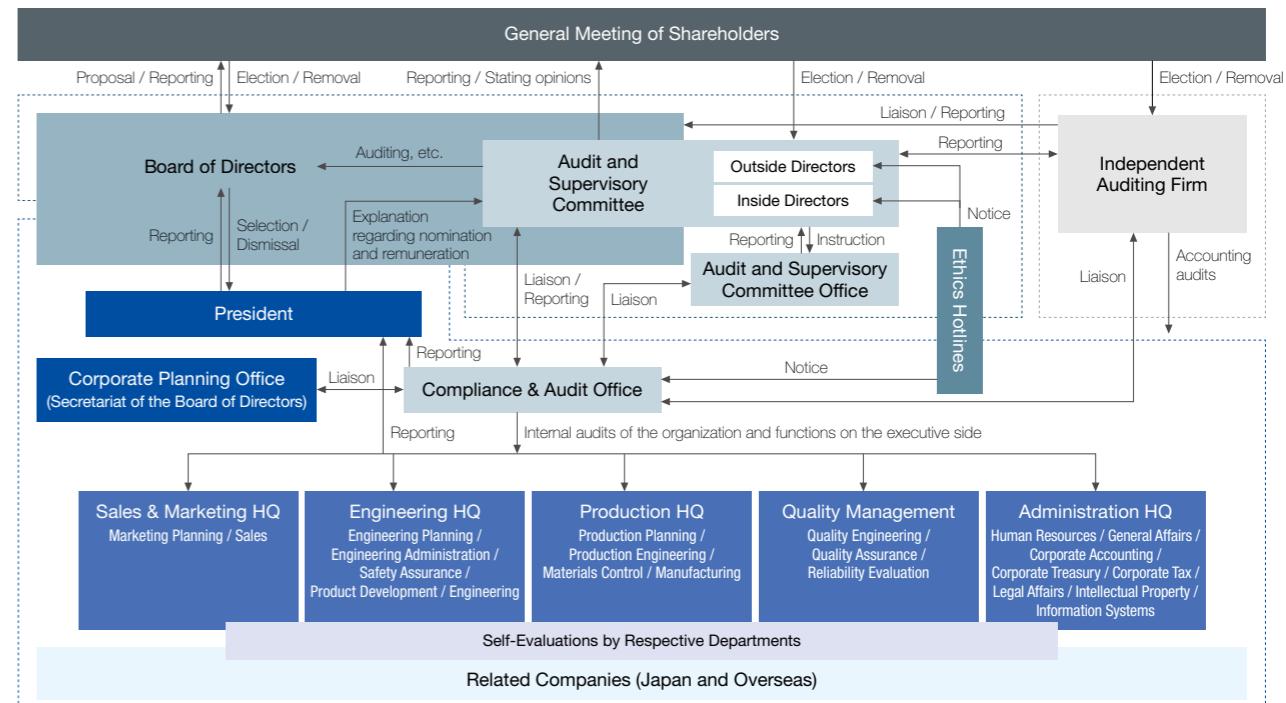
Alps Electric adopts a company with an audit and supervisory committee system as its organizational design under the Companies Act. Independent of executives, the Audit and Supervisory Committee bolsters auditing and supervisory

http://www.alps.com/jp/ir_governance.html
(Japanese language only)

Moreover, at the 85th Ordinary General Meeting of Shareholders held on June 22, 2018, changes to the Articles of Incorporation and the proposed election of directors (including directors who are Audit and Supervisory Committee members) related to the business integration with Alpine Electronics, Inc., were approved. Subject to the approval of the share exchange that will be voted on at the Extraordinary General Meeting of Shareholders of Alpine Electronics, Inc., scheduled for mid-December 2018, the company Alps Alpine Co., Ltd., is planned to be established effective January 1, 2019. Please see "Special Feature: Alps Electric and Alpine Business Integration" on page 28 for an overview of the new company.

functions while closely coordinating with an independent auditing firm and the internal audit department, thereby further strengthening corporate governance and enabling fair and highly transparent business administration.

Corporate Governance at Alps Electric



Board of Directors

Alps Electric's Board of Directors consists of 12 directors (not including Audit and Supervisory Committee members) and five directors (including three outside directors) who are Audit and Supervisory Committee members. It is positioned as an organ that deliberates and makes decisions on basic management policy and important management matters, such as short- and medium-term business plans, and carries out monitoring and supervision of the execution of duties. From June 2018, the

Company also has a female director in response to gender diversity, appointing an experienced business manager to ensure effectiveness with diversity and business.

Moreover, the Company formulates medium-term and short-term business plans based on Company policy and targets. Business plans are deliberated and decided by the Board of Directors after an opportunity for deliberation and information sharing at business plan meetings held twice a year with directors

of the Company in attendance. Operations are implemented with progress monitored on a monthly basis, while important matters are submitted to the Board of Directors for deliberation in accordance with the rules and bylaws for the Board of Directors to ensure optimal utilization of management resources.

Since introducing outside directors in 2013, the Company has promoted corporate governance reforms including the transition to a company with an audit and supervisory committee system, the formulation of corporate governance policies, revisions to the director remuneration system, and evaluations of the effectiveness of the Board of Directors. With the launch of Alps Alpine Co., Ltd., in January 2019, the Company will separate management supervision from business execution and introduce an executive officer system to further enhance

management maneuverability in response to drastic environmental changes, including automotive technology innovations said to occur once every 100 years. The Company will also change the number of directors from the current 17 members to 12 members (of whom six directors will be Audit and Supervisory Committee members) and shift the focus of the Board of Directors to monitoring activities. Outside directors will be increased from the current three members to five members (including two female directors). By increasing the ratio of outside directors to more than one-third, the Company will increase independent and objective perspectives to secure shareholder profits and work toward a new corporate governance system.

In fiscal 2017, the Board of Directors' meeting attendance rate for each director was as follows.

Director	Number of meetings attended / Number of meetings held	Director	Number of meetings attended / Number of meetings held	Director	Number of meetings attended / Number of meetings held
Toshihiro Kuriyama	12/12	Hitoshi Edagawa	12/12	Shuji Takamura	12/12
Takashi Kimoto	12/12	Takeshi Daimaru	12/12	Yasuhiro Fujii	12/12
Yasuo Saso	12/12	Akihiko Okayasu	12/12	Takashi Iida	12/12
Yoshitada Amagishi	12/12	Tetsuhiro Saeki	12/12	Hiroshi Akiyama	12/12
Masataka Kataoka	11/12	Yoichiro Kega	12/12	Takuji Kuniyoshi	12/12
Junichi Umehara	11/12	Hiroyuki Sato	12/12		

Evaluation of the Effectiveness of the Board of Directors

Alps Electric has established the Corporate Governance Policies for fulfilling its responsibilities to stakeholders, including shareholders, customers, employees, and local communities, as well as for implementing effective corporate governance with the objectives of sustainable growth and medium- to long-term improvement in its corporate value. Based on these efforts, with the aim of further improving the function of the Board of Directors, the Company stipulates the requirement for implementation of evaluation of the effectiveness of the Board of Directors in the rules for the Board of Directors and implements the evaluation every year. A summary of the evaluation results of the effectiveness of the Board of Directors for fiscal 2017 is as follows.

1. Method of analysis and evaluation

A non-anonymous questionnaire regarding the structure, operation, and deliberations of the Board of Directors, communication among directors, support systems, and other topics was conducted by all members of the Board of Directors, and the directors performed self-evaluations, including stating their opinions. The Audit and Supervisory Committee, including outside directors and the directors responsible for management and corporate planning, analyzed the results, organized issues,

and reported to the Board of Directors, which verified and deliberated on the results.

2. Summary of analysis and evaluation results

The results confirmed that discussions, deliberations, and operations for fiscal 2017 were appropriately and rationally conducted, and verified that effectiveness is secured. On the other hand, specific opinions and proposals were received regarding the size and structure of the Board of Directors, the preliminary checking of deliberation materials, the enhancement of discussions on business risks and hedging measures, as well as further exchanges between members of Audit and Supervisory Committee and executive directors.

3. Future action

In light of the above, these results shall be used in the examinations concerning the business integration with Alpine Electronics, Inc., scheduled for 2019, as well as for developing a business attitude with an even greater sense of unity through the sharing of opinions and evaluations of directors who have made proposals, and for improving the corporate governance and corporate value of the Company.

Audit and Supervisory Committee

Alps Electric's Audit and Supervisory Committee, a majority of members of whom are outside Audit and Supervisory Committee members, endeavors to make appropriate judgments from an objective standpoint, independent of the executives. Moreover, full-time Audit and Supervisory Committee members are appointed so that they will attend important in-house meetings and carry out such tasks as gathering valuable information and receiving reports on a daily basis. Outside Audit and Supervisory Committee members, who have experience as corporate managers, extensive legal expertise as attorneys at law, and accounting expertise as certified public accountants, and inside Audit & Supervisory Committee members, who are

familiar with the Company's business, conduct highly effective audits, cooperate with the internal audit department, and endeavor to provide opinions to management at Board of Directors' meetings and other important meetings. Moreover, assistants shall be appointed to assist duties of the Audit and Supervisory Committee, and the independence of employees performing the relevant tasks from directors (excluding directors who are members of the Audit and Supervisory Committee) shall be ensured. In accordance with the provisions of Article 427, Paragraph 1 of the Companies Act, the Company enters into agreements with five Audit and Supervisory Committee members limiting their liability for damages under Article 423, Paragraph

1 of the Companies Act. Accordingly, their liability for damages under the agreements is limited to the minimum amounts stipulated by laws and regulations.

In fiscal 2017, attendance by Audit & Supervisory Committee members at Audit & Supervisory Committee meetings was as follows.

Outside Directors

Alps Electric appoints outside directors based on their wealth of experience and extensive insight as experts on business management, law, and accounting from an objective perspective to receive advice on and oversight of Company management. The Company's outside directors focus on ensuring legal compliance in business administration and, bearing all stakeholders in mind, strive to strengthen the supervision of business administration by actively offering opinions and advice at meetings of the Board of Directors and through supervision of the election, removal, and compensation of management personnel as well as of conflicts of interest between the Company and management personnel, controlling shareholders and other parties, and other decision-making by the Board of Directors on important matters. Outside directors also work to realize effective supervision by regularly visiting facilities of Alps Electric to gather information and engage

Audit and Supervisory Committee member	Number of meetings attended / Number of meetings held
Shuji Takamura	13/13
Yasuhiro Fujii	13/13
Takashi Iida	13/13
Hiroshi Akiyama	13/13
Takuji Kuniyoshi	13/13

in information and opinion exchange with other directors and employees. The appointment of outside directors is determined based on Company standards for selection of director candidates, including criteria for independence, and outside directors, with their consent, are designated as independent directors with their appointment as independent directors being notified to Tokyo Stock Exchange, Inc.

At the 85th Ordinary General Meeting of Shareholders held on June 22, 2018, Takashi Iida, Kazuya Nakaya, and Yoko Toyoshi were appointed as Audit and Supervisory Committee members and outside directors. In addition to these three individuals, Satoshi Kinoshita was newly appointed as an outside director and Audit and Supervisory Committee member Satoko Hasegawa was newly appointed as an outside director of Alps Alpine Co., Ltd., to be established on January 1, 2019.

Alps Electric Co., Ltd., after June 2018

Name	Reason for appointment	Status on major concurrent holding of positions
Takashi Iida	To receive sound guidance and advice on management of the Company based on his extensive experience and achievements in the judicial world as a lawyer	Outside Corporate Auditor, Shimadzu Corporation Outside Audit & Supervisory Board Member, NIPPON TELEGRAPH AND TELEPHONE CORPORATION
Kazuya Nakaya	To employ in the management of the Company his specialized knowledge and experience and broad-ranging know-how accumulated as an experienced business practitioner over many years	
Yoko Toyoshi	To employ in the management of the Company her accounting audit experience gained from working for many years at accounting firms and her specialized knowledge and experience and broad-ranging know-how accumulated as a certified public accountant	

Alps Alpine Co., Ltd., Scheduled to Be Established in January 2019 (appointing two members in addition to the above three members)

Name	Reason for appointment	Status on major concurrent holding of positions
Satoshi Kinoshita	With extensive experience and wide-ranging knowledge through his work in domestic and overseas group corporate management, determined to be an appropriate person to achieve sustainable growth after the business integration and medium- to long-term increase in corporate value of the Company	
Satoko Hasegawa	With specialized knowledge and extensive insight through her many years of work as a lawyer, determined to be an appropriate person to perform audit operations while pursuing the continued sound development and growth of the Company after the business integration	Outside Director, Audit and Supervisory Committee Member, Hakudo Co., Ltd.

Director Remuneration System

Under the remuneration structure focusing on linkage with performance in the short term and performance over the medium to long term, Alps Electric incentivizes actions of directors for

increasing corporate performance and the share price to the maximum extent in order to lastingly improve the Group's corporate value. Specifically, the composition of remuneration is as follows:

Policy on Determining Remuneration

a) Remuneration for Inside Directors (Excluding Directors Who Are Members of the Audit and Supervisory Committee)
The Company's remuneration for inside directors (excluding directors who are members of the Audit and Supervisory Committee) consists of fixed remuneration, performance-based bonuses, and stock compensation-type stock options.

Performance-based bonuses vary according to single-year performance (operating profit, profit, and others).

Stock compensation-type stock options are granted as compensation linked to medium- to long-term performance in accordance with the number of stocks calculated based on the value at the time of issuance and according to the amount of

stock option remuneration that is specified for each position. Since these stock options have an effect equivalent to substantial provision of the Company's own stock, both increases and decreases in the Company's stock price are shared with shareholders under this system.

b) Remuneration for Directors Who Are Members of the Audit and Supervisory Committee

The Company's remuneration for directors who are members of the Audit and Supervisory Committee consists only of fixed remuneration.

Procedures for Determining Remuneration

The Company determines the remuneration for directors (excluding directors who are members of the Audit and Supervisory Committee) at Board of Directors' meetings, and the remuneration for directors who are members of the Audit and Supervisory

Committee at Audit and Supervisory Committee meetings, to the extent of the total amount of remuneration approved at the General Meeting of Shareholders.

In fiscal 2017, director remuneration was as follows.

Director Remuneration in fiscal 2017

Classification	Total value of remuneration (Millions of yen)	Total compensation by type (Millions of yen)			
		Base	Bonuses	Stock options	Number of applicable officers (People)
Directors (excluding Audit and Supervisory Committee members)	525	316	157	51	12
(of whom, outside directors)	(-)	(-)	(-)	(-)	(-)
Directors (Audit and Supervisory Committee members)	62	62	-	-	5
(of whom, outside directors)	(28)	(28)	(-)	(-)	(3)
Total	588	378	157	51	17
(of whom, outside directors)	(28)	(28)	(-)	(-)	(3)

Notes:

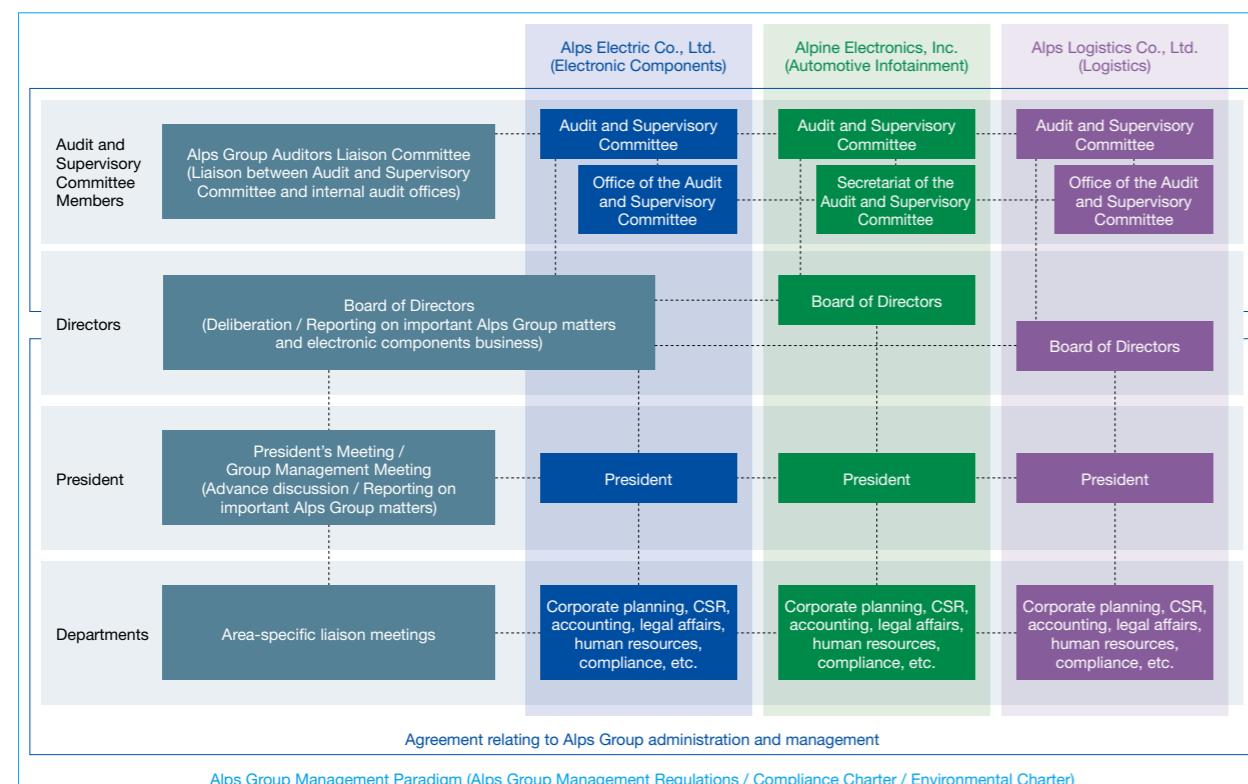
1. The amount of remuneration for directors (excluding Audit and Supervisory Committee members) does not include employee-portion salary for directors who also serve as an employee.
2. On the last day of fiscal 2017, there were 12 directors (excluding Audit and Supervisory Committee members) and five directors (Audit and Supervisory Committee members), of whom three were outside directors.

Internal Controls

Acknowledging the Founding Spirit (Alps Precepts) as the origin of Group management, Alps Electric has established within the Alps Group Management Paradigm a fundamental philosophy and action guidelines relating to compliance by Alps Electric that apply to the entire Alps Group, including Alps Electric and listed subsidiaries. We also maintain internal controls (systems for ensuring the appropriateness of operations) conforming to the

Companies Act of Japan and ordinances for enforcement of the act to make sure that Alps Electric and the Alps Group as a whole are operated efficiently and appropriately. For basic policies and an overview of the operational status of internal control systems, please view the "Matters Related to Internal Control System" section of our Corporate Governance Report.
http://www.alps.com/e/ir_ir_governance.html

Alps Group Internal Controls



Compliance

Basic Approach to Compliance

As parent of the Alps Group, Alps Electric established the Alps Group Compliance Charter as one element of the Alps Group Management Paradigm, a statement comprising a fundamental compliance philosophy and six action guidelines shared by the entire Group.

We also appeal to all organizations and employees within the Alps Group to make an effort at all times to act responsibly and sensibly in line with the Alps Group Compliance Charter, aiming for fair management in keeping with the purpose of the law, social requirements, and corporate ethical standards. In this regard, we believe it is important to go beyond the formalities of observing laws and rules and take appropriate action proactively

having acquired an understanding of why those laws and rules are necessary—their purpose and significance.

Furthermore, the core companies of each business segment (Electronic Components: Alps Electric; Automotive Infotainment: Alpine Electronics; Logistics: Alps Logistics) globally deploy within each of those segments specific measures based on the Alps Group Compliance Charter and consistent with their respective business domains, such as the establishment of "systems for ensuring the appropriateness of operations" and necessary in-house rules and regulations.

Alps Group Compliance Charter

Fundamental Philosophy

As a member of the global community, Alps is committed to displaying fairness in its corporate activities, as well as to taking responsible and sensible action, in order that Alps may continue to develop with society while making a valuable social contribution.

Action Guidelines

1. Alps will abide by laws and ordinances that govern its business and will ensure sensible behavior to avoid involvement in antisocial acts.
2. Alps will respect foreign cultures and customs and will contribute to local community development.
3. Alps will aim for maximum product safety and quality while engaging in fair trade and competition with other companies and maintaining strong ties with authorities.
4. Alps will disclose information fairly to shareholders and other stakeholders.
5. Alps will provide a safe and user-friendly workplace and will respect the character and individuality of employees.
6. Alps will endeavor to manage and use society's assets, including goods, money, and information, in a suitable manner without displaying behavior that could be of disadvantage to society.

Measures

As the core company of the Electronic Components Segment, Alps Electric has established a set of compliance regulations based on the Alps Group Compliance Charter and globally deploys specific measures within the segment.

The deployment of measures goes beyond developing and introducing rules and systems. Importance is placed on ensuring that those rules and systems are being managed properly and effectively by encouraging individual employees, who actually engage in the activities, to take proactive action based on a proper understanding of the importance of compliance.

Specifically, internal controls are established and implemented to ensure that management of Company and Group operations is carried out appropriately; that departments carry out self-evaluations (monitoring) of their own activities; and that the internal audit department carries out internal audits of the activities and operations of various departments, overseas affiliates, and other subsidiaries. For example, in regard to the management and use of grants and subsidies received from public agencies in Japan, Alps Electric has established a set of regulations related to the management and use of such grants and subsidies and put in place a Companywide management structure with the

president as the chief officer in charge and the general manager of the administration headquarters as supervising officer. Within each headquarters, where there are structures in place for promoting compliance, the compliance promotion representative for the headquarters—the head of the planning department—assigns compliance promotion officers and ensures that grants and subsidies are managed and used within the organization according to the regulations. Each compliance promotion representative also regularly checks up on the use of grants and subsidies within their headquarters and reports to the supervising officer and the internal audit department. In addition, the internal audit department regularly checks up on the use of grants and subsidies Companywide and reports to the supervising officer and the chief officer in charge.

To ensure early discovery and correction of misconduct or other compliance incidents, persons in charge of facilities in Japan and at overseas affiliates are obliged to report any incidents when they occur to relevant Alps Electric directors and managing directors as well as to the corporate planning and compliance departments.

Whistle-Blowing System

The Alps Electric Group has established and operates a whistle-blowing system (Ethics Hotlines), which is independent of management in charge of business execution, for use when issue resolution through organizational lines is complicated in the event that legal, internal rule, or compliance violations occur (including all types of harassment). Ethics Hotlines have been set up in Japan and at main overseas affiliates with consideration paid to national and regional differences in the law and the need for an agile response to incident reports.

Alps Electric has established Ethics Hotline regulations, appointing one full-time Audit and Supervisory Committee member, one outside Audit and Supervisory Committee member, and the head of the compliance department as contact points for the Ethics Hotlines. These regulations also stipulate the confidentiality of reports and ensure the anonymity and

protection of those making reports. Contact information for these reporting contact points is always available in the Company newsletter and on the Ethics Hotline page of the Company's website, as well as in internal compliance CSR news and all training sessions in an attempt to promote awareness.

Additionally, when the Ethics Hotlines receive a report, it does so in accordance with the rules stipulated in the aforementioned Ethics Hotline regulations. In particular, in consideration of maintaining confidentiality and ensuring the anonymity with regard to the reporting party, investigations are conducted and, if reported activities are confirmed to be true, appropriate measures are taken. In the past, there were cases in which the reporting of occupational health and safety violations and harassment to the Ethics Hotlines led to an opportunity to promptly rectify or prevent compliance violations.

Global Implementation of Compliance and CSR Training

To improve understanding and awareness regarding compliance and CSR, in fiscal 2015 Alps Electric, the core company in the Electronic Components Segment, launched compliance and CSR training at Alps Electric and at affiliates in China, Hong Kong, and Taiwan. Since fiscal 2016, this same training has been implemented regularly for companies in the Electronic Components Segment.

Based on the aforementioned Alps Group Compliance

Fiscal 2018 Compliance and CSR Training Curriculum

- | | | |
|----------------------------------------------------------------------|---------------------------|----------------------------------------------------------------------|
| 1. President's message | 5. Information management | 9. Insider trading |
| 2. Insistence on quality | 6. Crisis management | 10. Embezzlement, misappropriation, and entertainment gift exchanges |
| 3. Prevention of harassment, discrimination, abuse, and forced labor | (emergency responses) | 11. Competition Law (Anti-Monopoly Act) |
| 4. Appropriate accounting treatment | 7. Health and safety | 12. Whistle-blowing system |

Anticorruption Initiatives

The Alps Electric Basic Compliance Regulations define the scope of the giving and receiving of entertainment gifts among clients, business partners, and public officials as well as prohibitions on conflicts of interest, embezzlement, and misappropriation. Compliance and CSR training is conducted every year for all employees as ongoing education to remind everyone to be aware of the prohibitions on embezzlement, misappropriation, gifts, and entertainment.

These problems are compliance violations that can be reported to the Ethics Hotlines, enabling employees who have knowledge

of these activities to report them using the Ethics Hotlines.

If such activities occur, the executive officer in charge will conduct an investigation (in the event the incident is reported to the Ethics Hotlines, the response will be provided by the Ethics Hotlines, which are independent of the executive department) and, if true, handled appropriately to prevent recurrence and reported to the Board of Directors. Employees engaged in the reported acts of corruption will be subject to disciplinary actions based on internal regulations.

Risk Management

Approach to Risk Management

Risks are diversifying due to business globalization and technological advancements. To address these risks, it is vital that the Alps Electric Group averts risks affecting its future and that it anticipates dangers and losses that could potentially occur and take steps to avoid them or, if they cannot be avoided, minimize the damage caused. And given recent debate about the value that corporations bring to society, the Group needs to strengthen management and operational foundations that support legal compliance and appropriateness of management and the execution of business affairs. It is also essential that, even in times of economic stagnation and low growth, the Group carries out growth-oriented management with risks thoroughly managed. The Group views risk management as the basis for a style of management and business operations that enables sustained business growth and enhanced corporate value over the

medium to long term; in other words, a foundation for growth-oriented management.

Foundation for Growth-Oriented Management



risk management measure implementation. Risk maps are subsequently prepared based on the results of these evaluations. Going forward, these risk maps will help guide the Group's risk management activities.

Approach to Risk Maps



Crisis Management

In addition to fires, natural disasters such as earthquakes and heavy rains have a significant impact on a corporation's business and management as well as on its supply chain. To prepare for

Crisis Management Policy (Excerpts from the Crisis Management Manual)

- We will place top priority on ensuring the safety of employees, all people on Company premises (including visitors, related Company employees, on-site subcontractors, and temporary staff), and the families of employees.
- We will continue business activities and do everything we can to maintain the supply of products and provision of services to customers.

such crises, the Alps Electric Group is promoting various initiatives to realize a prompt recovery in operations and minimize damage.

Crisis Management Regulations and Manuals

The Alps Electric Group identifies risks that need to be managed in a set of crisis management regulations and maintains crisis management manuals depending on the significance of

the risk, updating them as required. Each facility in Japan also promotes its own individual crisis management manuals based on Groupwide manuals.

Information Security

Within the Alps Electric Group, the information systems department heads activities for establishing regulations related to information security, devising security enhancement measures and training plans, and deploying them both in Japan and globally through coordination with information officers in individual departments.

To thoroughly disseminate the information management policy, information management audits of individual departments

are conducted every year to confirm the status and progress of educational activity plans and improvement measures. Operation, maintenance, and trouble response activities of information systems departments are also audited, and the Group is advancing efforts to prevent the falsification of information and maintain environments allowing for the timely utilization of information for business, along with measures to counter new threats such as targeted attacks.

Message from an Outside Director

Supporting Management as an Outside Director to Prevail in an Era of Major Changes

Takashi Iida, who has served as an outside director for five years, discusses corporate governance and expectations for the Alps Group going forward.

Takashi Iida
Outside Director
Audit and Supervisory Committee Member



■ Reflecting on the Past Five Years

It has been five years since I was appointed an Alps Electric outside director. Right before I was appointed, Company performance in fiscal 2012 resulted in approximately half of current sales and operating income was lackluster. However, it was also a period in which we overcame the global financial crisis and rallied our accumulated strengths. After that, we leveraged our production technology capabilities, the Company's biggest strength, to realize the ultra-mass production of smartphone components using automated machines. In addition, we rode the wave of electric vehicle innovations and entered a period of growth as our sales in the automotive market expanded significantly.

With regard to governance, during this time we made the critical decision to shift to a company with an audit and supervisory committee system as well as transition to a holding company through business integration with Alpine. The business integration, in particular, was an opportunity for not only the Board of Directors but also several other highly important considerations and discussions. In fiscal 2018 thus far, the Board of Directors has made substantial progress, with a composition including an outside director with business management experience and the addition of a female outside director.

In the past five years, Japan has made considerable progress toward globalization. The establishment of the Corporate Governance Code by the Tokyo Stock Exchange in 2015 has facilitated a clear understanding among international investors with regard to the corporate governance of listed companies in Japan and promoted the globalization of capital markets. In terms of business activities, while the Alps Group is one of Japan's leading companies in terms of its progress toward globalization, we must continue efforts to further promote globalization in governance.

■ The Roles of Outside Directors and Audit and Supervisory Committee Members

As a legal practitioner for over 40 years, I have been involved in various aspects of many companies. In addition, as an outside director of multiple companies, I have had many opportunities to consider and discuss corporate activities in these companies.

Given my experience, I think the role of an outside director is to make decisions and take actions that are always focused on the interests of shareholders and all stakeholders; in other words, what is best for a given company. My basic stance is to thoroughly consider risk and, in principle, support the management team.

Furthermore, the role of audit and supervisory committee members is to maintain and enhance a company's sustainability; namely, the reliability of its business activities. There are two aspects to this: compliance and integrity with regard to quality. The latter involves both quality improvements and quality management. With both of these aspects firmly established, it is vital to protect them without fail. We must further enhance the global reliability of business activities based on the awareness that Alps Electric is a global corporation.

■ Expectations for the Alps Group Going Forward

At present, the automotive market is in the midst of a major transformation referred to as "CASE" (connected, autonomous, shared & services, and electric). This market accounts for an extremely large portion of the Alps Group's businesses. The transformation presents us with an opportunity. As Alps Electric and Alpine are integrating in this period of major change, it is essential we transform while demonstrating more sophisticated and powerful corporate capabilities. This is why business integration is necessary right now.

At the same time, we must further enhance our strength in production technologies and voraciously pursue ultra-mass production business opportunities through automated machines going forward. In addition, in the automotive market, which is expanding before our eyes and undergoing tremendous changes, there is demand for small-lot production of many kinds of products. With the establishment of competitive production methods, we are halfway there. For 70 years, the Alps Group has cultivated and refined production technologies and the fundamental strengths that support them. In the automotive market, in the near future I expect the Company to develop high-level production methods fully leveraging its strong production technology development capabilities, and I will support the Alps Group in this endeavor.

Financial Data

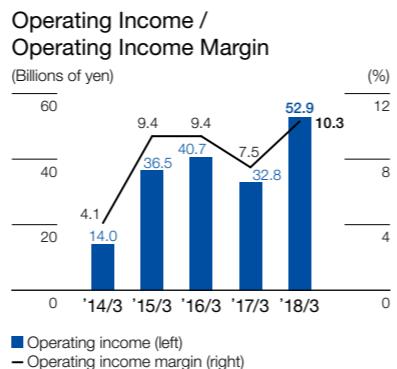
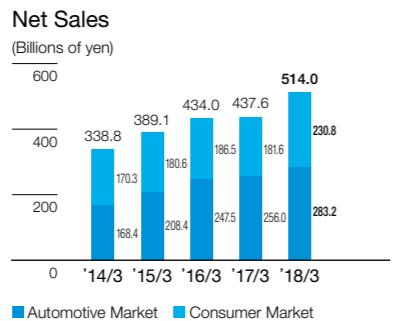
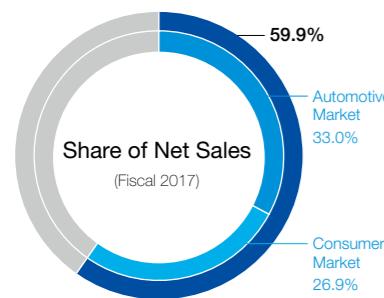
Segment Information

Analysis of Financial Condition,
Operating Results, and Cash Flows

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Electronic Components

In the electronics industry, connected, autonomous, shared & services, and electric (CASE) development activities were vigorous in the automotive market as electrical installation needs continued to increase. With regard to smartphones in the mobile market, despite a deceleration in the strong growth of the past several years, smartphones have maintained a massive presence in this market. In the Internet of Things (IoT) market, where VR-enabled products for gaming consoles are growing, governments worldwide are calling for the utilization of such products.

Amid these developments, in the Electronic Components Segment and in the second year of the 8th Mid-Term Business Plan, demand was firm overall for control and input modules and high-frequency communications products in the automotive market. In the consumer market, demand for various products for smartphones has remained high and, despite signs of a decline at the end of the fiscal year under review, was a driver of earnings throughout the year. Meanwhile, growth in products for gaming consoles remained on track, and in the energy, healthcare, industry, and the IoT (EHII) markets, we promoted concrete proposal activities in the IoT and other markets. In addition to these factors, the yen depreciated to a greater extent than initially expected over the course of the year, driving steady growth in performance.

Automotive Market

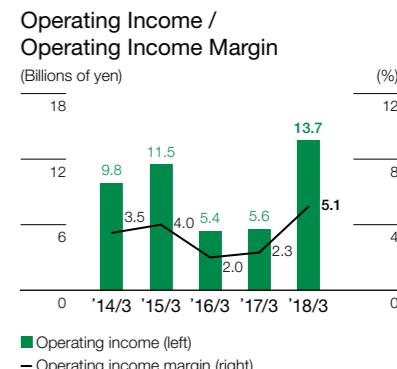
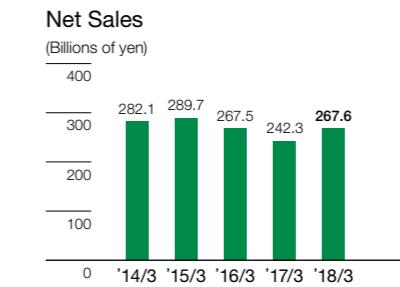
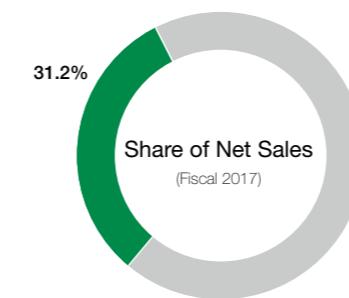
In the automotive market within the Electronic Components Segment, the movement toward the application of electronics in automobiles accelerated further in line with the development of autonomous vehicles, while module products such as electronic shifters and door modules, products employing high-frequency communications methods such as Bluetooth®, W-LAN, and LTE, and various automotive devices including sensors performed favorably overall. Net sales to the automotive market for fiscal 2017 (the year ended March 31, 2018) were ¥283.2 billion, a 10.6% increase year on year.

Consumer Market

In the consumer market within the Electronic Components Segment, in the mobile market, sales of actuators for cameras remained at a high level from the beginning of the fiscal year and, despite a trend toward deceleration at the end of the fiscal year in some areas, the full year saw a year-on-year increase, as sales of switches and other component products were also steady. HAPTIC™ maintained its strength in response to the booming gaming console market as well as to deployment efforts in various markets. In the EHII markets, we developed initiatives regarding energy with leading heavy electric and electric power companies. In the IoT market, we worked with subsidiary Alps System Integration Co., Ltd., to understand needs and uncover new demand in a variety of industries.

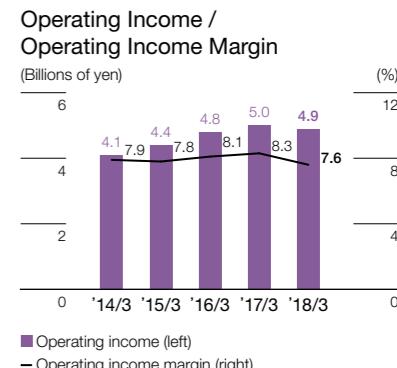
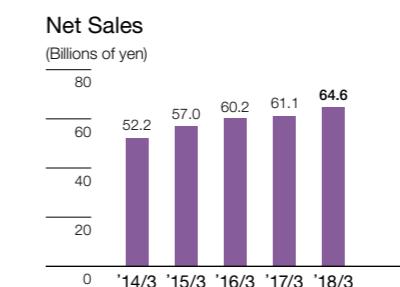
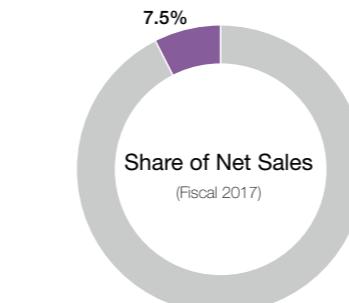
Net sales in the consumer market for fiscal 2017 were ¥230.8 billion, a 27.1% year-on-year increase.

The above performance resulted in net sales of ¥514.0 billion (17.4% year-on-year increase) and operating income of ¥52.9 billion (61.4% increase) in the Electronic Components Segment overall for fiscal 2017.

Automotive Infotainment

C's Lab Co., Ltd., making it a subsidiary, and commenced joint development with Konica Minolta, Inc., which is aimed at the mass production of head-up displays (HUDs) utilizing 3D augmented reality (AR) technologies developed by Konica Minolta. We also began selling the Alpine Style Customize Car. In addition to the above, amid growth in sales of Alpine-brand products made specifically for vehicles in the domestic market and sales of genuine products for European automobile manufacturers in the Chinese market, a weaker yen caused the exchange rate to be more favorable than expected at the beginning of the fiscal year, resulting in performance-exceeding initial forecasts.

As a result, net sales of ¥267.6 billion (10.5% year-on-year increase) and operating income of ¥13.7 billion (144.2% increase) were recorded in the Automotive Infotainment Segment for fiscal 2017.

Logistics

In the electronic components industry, the main market for the Logistics Segment, despite a slowdown in demand for smartphones from the beginning of the fiscal year, overall sales were strong due to increased production of automotive-related products and smartphones.

Based on these demand trends, Alps Logistics Co., Ltd., expanded its bases, warehouses, and networks globally; engaged in sales activities aimed at developing customers in new markets and expanding commission areas; attempted to increase freight volumes; and made an effort to increase productivity in the transportation, warehousing, and forwarding businesses. In Japan, a warehouse was constructed in the city of Funabashi, Chiba Prefecture, to respond to expected future expansion in the forwarding business.

We also commenced construction on a large warehouse in Kazo, Saitama Prefecture, which was completed in May 2018. Overseas, we endeavored to expand warehousing capacity by reorganizing warehouses in line with business expansion in Hong Kong, we opened a branch in Chongqing, China, and established local subsidiaries in Hanoi, Vietnam, and Gurugram, just outside New Delhi, India. In North America, meanwhile, we opened a sales office in Dallas, Texas, and established our second local subsidiary in Mexico.

The above resulted in net sales of ¥64.6 billion (5.7% year-on-year increase) and operating income of ¥4.9 billion (3.0% increase) in the Logistics Segment for fiscal 2017.

1. Analysis of Operating Results for the Fiscal Year Ended March 31, 2018

1. Financial Condition

Total assets at the end of fiscal 2017 were ¥671.7 billion, a ¥68.8 billion increase from the end of the previous fiscal year. Equity capital rose ¥46.6 billion, to ¥301.1 billion, due to an increase in retained earnings and other factors. The equity ratio was 44.8%.

Current assets stood at ¥409.9 billion, a ¥30.2 billion increase, due to such factors as increases in notes and accounts receivable, inventories, and cash and time deposits.

Non-current assets came to ¥261.8 billion, a ¥38.6 billion increase, due to factors including increases in machinery, equipment and vehicles, tools, furniture, fixtures and dies, intangible—trade assets, net, and investment securities.

Current liabilities were ¥197.7 billion, a ¥9.6 billion increase, due to factors including increases in accrued expenses, provision for bonuses and provision for product warranties, and decreases in notes and accounts payable—trade and short-term loans payable.

Non-current liabilities totaled ¥58.1 billion, a ¥4.4 billion increase, due to factors such as an increase in long-term debt and a decrease in liability for retirement benefits.

2. Operating Results

In the global economy during fiscal 2017 (the year ended March 31, 2018), the United States saw corporate earnings and the employment situation remain firm as personal consumption continued to expand.

In Europe, economic performance was strong overall. In addition to healthy performance in the Eurozone, stemming from a drop in the unemployment rate and robust corporate capital investment owing to higher exports, the United Kingdom experienced a gradual recovery in personal consumption. In China, the economy remained stable due to favorable exports and other factors, underpinned by public investment. In Japan, the gradual economic recovery continued amid solid corporate earnings and employment situation improvements.

On a consolidated basis, the Alps Group recorded net sales of ¥858.3 billion (a 13.9% year-on-year increase), operating income of ¥71.9 billion (62.0% increase), ordinary income of ¥66.7 billion (56.2% increase), and profit attributable to owners of parent of ¥47.3 billion (35.7% increase).

3. Cash Flows

Cash and cash equivalents (hereafter, "cash") at the end of fiscal 2017 increased ¥2.7 billion from the end of the previous fiscal year, to ¥120.7 billion.

Cash Flows from Operating Activities

Net cash provided by operating activities during fiscal 2017 came to ¥70.3 billion, compared with ¥41.6 billion provided during the previous fiscal year. This was mainly attributable to all-time high operating income in the Electronic Components and Automotive Infotainment segments.

Cash Flows from Investing Activities

Net cash used in investing activities amounted to ¥66.7 billion, compared with ¥37.9 billion used in the previous fiscal year. This was mainly attributable to proactive capital expenditures aimed at expanding the scope of products for smartphones to create future profits.

Cash Flows from Financing Activities

Net cash used in financing activities came to ¥2.9 billion, compared with ¥0.3 billion used in the previous fiscal year. This was attributable primarily to ¥6.2 billion used for cash dividends paid, net decrease in short-term loans payable of ¥2.7 billion and dividends paid to non-controlling interests of ¥2.0 billion, and ¥10.6 billion provided by proceeds from long-term loans payable.

2. Analysis and Discussion of Operating Results for the Fiscal Year Ended March 31, 2018

Automotive Infotainment

In the fiscal year under review, this segment aimed for an operating income margin of over 5% (including internal transactions between segments). We achieved an operating income margin of 5.0% due to solid sales of Alpine-brand products that cater to vehicles in the Japanese aftermarket amid higher sales of genuine products to European automakers in the Chinese market. In addition, exchange rates were affected by the weaker yen, which led to higher net sales and operating income as well as to a reduction in fixed costs and other attempts to streamline R&D expenses.

Going forward, we will execute the planned business integration with Alpine Electronics, Inc., to respond to new CASE trends in the automotive industry. Alps Electric will combine its sensing and communications device technologies with Alpine Electronics' software technologies to engage in the development of a premium human-machine interface (HMI) that will provide drivers and passengers with exciting transportation spaces and experiences and offer total solutions for automotive infotainment systems.

Operating results for each segment are as follows.

Electronic Components

In the consolidated fiscal year under review, the management target in this segment was GT510: net sales of ¥500 billion and an operating income margin of 10%. We achieved this target, with net sales of ¥514.0 billion and an operating income margin of 10.3%. This was due to solid sales expansion in the automotive market (10.6% year-on-year increase), while in the consumer market sales grew substantially (27.1% increase), resulting in all-time highs in net sales and operating income.

Looking ahead, in the automotive market we will promote further earnings improvements with module products. In the mobile market, meanwhile, we will make an effort to increase profitability by making full use of existing facilities in response to commoditization in the smartphone market. We will redouble our efforts to pursue "dual pillars of profit" in the automotive and mobile markets while focusing on the development of innovative CASE products for the automotive industry, among other initiatives, aimed at securing business for the future. With regard to business targeting the EHII markets, we will strive to quickly establish a business foundation through ongoing proposal activities involving the entire Alps Group and business alliances with other companies. Moreover, we will promote a variety of initiatives in Japan and overseas, with the goal of enhancing our production system and improving productivity.

Logistics

In the fiscal year under review, the operating target for this segment was net sales of ¥100 billion (including internal transactions between segments). We achieved this target with actual net sales amounting to ¥104.9 billion. In the electronic component-related business, efforts to increase the outside sales and overseas sales ratios (including internal transactions between segments) resulted in the outside sales ratio improving 1.4 percentage points over the previous fiscal year, to 49.9%, and the overseas sales ratio increasing 1.2 percentage points compared with the previous fiscal year, to 37.5%. This was due to expansions in global bases and networks, the promotion of new sales, and expanded sales promotions.

Looking ahead, in the electronic components industry, which comprises the main customers of this business segment, we expect growth driven by the development of various devices and automotive digitization as well as expanding demand in emerging countries. At the same time, customer logistics innovation needs are increasing and diversifying. We will attempt to expand business globally by taking on challenges in new domains, innovating on-site operations and strengthening our business foundation, and enhancing competitiveness based on the Next Actions business policy of taking on the challenge of advanced logistics quality, cost, delivery, and service (QCDS).

Consolidated Forecasts for the Fiscal Year Ending March 31, 2019

(Billions of yen)

	Six months ending Sept. 30, 2018	Twelve months ending Mar. 31, 2019	YoY
Net sales	421.0	879.0	2.4 %
Operating income	24.5	66.0	(8.2)%
Ordinary income	23.0	64.0	(4.1)%
Profit attributable to owners of parent	14.0	43.0	(9.3)%

The above forecasts assume the following exchange rates:
Six months ending September 30, 2018: U.S.\$1 = ¥108.04, €1 = ¥130.53
Twelve months ending March 31, 2019: U.S.\$1 = ¥107.52, €1 = ¥130.77

3. Business and Other Risks

Risks pertaining to the status of operations and accounting of the Alps Group that could have a major impact on investors' decisions are outlined below.

Forward-looking statements are based on judgments made at the end of the fiscal year ended March 31, 2018.

1. Economic Conditions

The Alps Group (Alps Electric and its consolidated subsidiaries) operates a global business centered on the Electronic Components Segment, with overseas markets accounting for 81.8% of sales in fiscal 2017 (year ended March 31, 2018). As most of the Alps Group's products are sold to manufacturers, customers' production levels, which may be influenced by economic trends, have a major impact on the business of the Alps Group. The Alps Group will therefore be influenced directly or indirectly by economic conditions in markets across Japan, Europe, the United States, and Asia, and economic fluctuations in those markets have the potential to impact the results of operations and financial condition of the Alps Group.

2. Competition

The Alps Group is exposed to intense competition from other companies in the Electronic Components Segment and all other areas of business. Although the Alps Group makes efforts to satisfy customers by introducing new products, supplying products of a high quality, and enhancing and expanding its global network, market competition is expected to intensify further. This creates potential for unforeseen situations, such as the failure to win orders, which could have an adverse effect on the Alps Group's results of operations and financial condition.

3. Customer Needs and Introduction of New Technology

The pace of innovation is fast in businesses engaged in by the Alps Group. Customers' requirements change often and new products and services are frequently introduced. There are times when the development of new technologies, products, and services quickly leads to the obsolescence of existing products and services, affecting their competitiveness or causing prices to fall dramatically. The Alps Group therefore actively advances development of new technologies and products, but there is no guarantee that the results will lead to advantages in the market. The inability to adapt quickly to rapid innovation or anticipated innovation, or the inability to introduce new products to meet customer needs, could have an adverse effect on the Alps Group's results of operations and financial condition.

4. Customers' Production Plans

The majority of the Alps Group's customers are manufacturers and, as such, its business is directly affected by customers' production plans. Customers' production plans are in turn influenced by factors such as cyclical and seasonal trends in consumer spending, introduction of new products, forecasts of demand for new specifications and standards, and the speed of technological innovation. These uncertainties have the potential to adversely affect medium- to long-term R&D activities and capital investment plan formulations of the Alps Group.

5. Underlying Risks Related to Overseas Business and Operations

Many of the Alps Group's production and sales activities are undertaken in the United States, Europe, and Asia, including China. Engaging in business for overseas markets and operating in overseas locations come with inherent risks, including unexpected changes to legal and tax systems, disadvantageous political or economic factors, and terrorism, war, or other social disturbances. Such circumstances therefore have the potential to interfere with the Alps Group's execution of business affairs.

6. Supply Structures for Certain Parts

The Alps Group makes an effort to manufacture critical parts within the Group, but some critical parts are sourced from companies outside the Group. A situation in which a supplier is unable to fill orders for parts in quantities required by the Alps Group due to, for example, a natural disaster may lead to a production delay or the loss of sales opportunities and could adversely affect the results of operations and financial condition of the Alps Group.

7. Fluctuations in Results of Operations

The results of operations of the Alps Group may vary due to factors outside of the Group's control. Such factors may include changes in general economic and business conditions, the success or failure of commercialization of new end products, changes to product strategies of major customers, cancellation of large orders, bankruptcy of major customers, significant changes due to the disappearance of major customers through a merger or acquisition, changes in raw material and purchased part prices, fluctuations in transportation and other expenses, electrical power conditions, and the management of personal and confidential information. Unfavorable changes concerning any of these factors could adversely affect the results of operations and financial condition of the Alps Group.

8. Intellectual Property

Patents and other types of intellectual property are key factors in the competitiveness of Alps Group products because of the emphasis placed on technological innovation in many of the markets we serve. The Alps Group generally employs technologies developed by the Group and seeks to protect those technologies by acquiring, and in cases asserting, patents, trademarks, and other intellectual property rights. However, there is no guarantee that there will be no impediments to the Alps Group's assertion of intellectual property rights, and it is possible that allegations of infringement of other companies' intellectual property rights could be made against the Alps Group.

The Alps Group counters claims filed against it for allegedly infringing intellectual property rights. However, if the Alps Group ends up paying damages as part of a legal settlement reached as a result of the proceedings, this would potentially have an adverse effect on the results of operations and financial condition of the Alps Group. Furthermore, licenses to use the intellectual property of other companies are obtained for some Alps Group products, but there is no guarantee that the owners of those rights will continue to grant licenses to the Alps Group into the

future. Circumstances unfavorable to the Alps Group could adversely affect its results of operations and financial condition.

9. Foreign Exchange and Interest Rate Risks

The Alps Group engages in a global business and as such is exposed to the effects of exchange rate fluctuations. For instance, appreciation of the Japanese yen against a foreign currency, particularly the U.S. dollar or the euro, could have a negative impact on the Alps Group's results of operations. The Alps Group tries to minimize the effect of foreign exchange rate fluctuations by hedging risk using forward contracts or options and by offsetting foreign currency-denominated assets and liabilities. However, in situations where exchange rate fluctuations well exceed expectations, there is no guarantee that the impact on the Alps Group's results of operations can be mitigated.

The Alps Group also has assets and liabilities that come with interest rate fluctuation risks. While these risks are partly hedged through interest rate swaps, interest rate fluctuations could potentially lead to a higher interest burden.

10. Public Regulations

The Alps Group is subject to wide-ranging government controls, laws, and regulations in countries where it operates, including business and investment permit requirements, customs duties, and other import and export regulations. These regulations may restrict the business activities of the Alps Group, leading to higher costs. Accordingly, these regulations have the potential to adversely affect the results of operations and financial condition of the Alps Group.

11. Environmental Contamination Risks

The Alps Group implements measures to mitigate environmental risks in line with the Alps Group Environmental Charter as part of its CSR activities. Specific measures include the prevention of chemical substance leaks, thorough wastewater and emissions management, and purification of soil and groundwater at domestic business locations. However, there is no guarantee that environmental contamination will not occur in the future during the course of business activities. The occurrence or discovery of such an unforeseen event would generate costs associated with countermeasures and potentially lead to deterioration of the Alps Group's results of operations and financial condition.

12. Funding Risks

The Alps Group has entered into syndicated loan and syndicated committed credit line agreements with its banks. However, any violation of financial covenants in these agreements might result in requests for repayment of borrowed funds to be brought forward, potentially affecting the Alps Group's financial condition.

13. Disaster Risks

The Alps Group ensures thorough implementation of measures for preventing or mitigating damage caused by earthquakes or other disasters at production bases in Japan and overseas and in the past has effectively minimized the impact of disasters on operations. However, major disasters exceeding expectations could have a substantial impact on operations.

14. Risks Related to Impairment Accounting

The Alps Group owns a wide range of assets for use in its operations. There is a risk that these assets will have to undergo impairment accounting due to a decline in market value or the state of future cash inflows, potentially having an effect on the Alps Group's results of operations.

15. Risks of Fluctuations in Prices of Marketable Securities

Although the Alps Group does not hold marketable securities for trading purposes, all securities it does hold that have a market value are marked to market value. Price fluctuations on stock markets could therefore affect the results of operations and financial condition of the Alps Group.

16. Risks Related to Legal Proceedings and Lawsuits

The Alps Group has established and implements compliance systems for its business activities. However, the Alps Group's results of operations and financial condition could be adversely affected if legal proceedings were initiated by a regulatory authority due to a violation of law, or if legal action were to be taken, in relation to the activities of the Alps Group.

17. Risks Related to Quality

The Alps Group has established a quality assurance system and makes an effort to maintain and improve quality through quality improvement activities and the prevention of problems before they occur. However, in the event that a customer incurs losses caused by the quality of Group products, there is a possibility that the Alps Group may be liable for compensation in excess of the applicable product liability insurance. As a result, this may adversely affect the results of operations and financial condition of the Alps Group.

Consolidated Balance Sheet

Alps Electric Co., Ltd. and Consolidated Subsidiaries
As of March 31, 2018 and 2017

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2018	2017	2018
ASSETS			
Current assets:			
Cash and time deposits (Notes 15 and 16)	¥121,554	¥118,968	\$1,144,145
Notes and accounts receivable—trade (Note 16):			
Unconsolidated subsidiaries and affiliated companies	960	955	9,036
Other	159,147	145,172	1,497,995
Allowance for doubtful accounts	(436)	(426)	(4,104)
Inventories (Note 4)	96,126	89,629	904,800
Deferred tax assets (Note 14)	9,641	6,618	90,747
Other current assets	22,955	18,796	216,067
Total current assets	409,948	379,713	3,858,697
Property, plant and equipment (Note 5):			
Land (Note 9)	30,574	29,580	287,782
Buildings and structures (Note 10)	134,447	130,433	1,265,503
Machinery and equipment (Note 10)	369,715	332,629	3,479,998
Construction in progress	27,465	15,513	258,518
	562,203	508,156	5,291,820
Less accumulated depreciation and impairment losses	(376,312)	(358,371)	(3,542,093)
Property, plant and equipment, net	185,891	149,785	1,749,727
Investments and other assets:			
Intangible assets, net	18,572	16,773	174,812
Investments in unconsolidated subsidiaries and affiliated companies (Notes 3 and 16)	20,124	20,382	189,420
Investment securities (Notes 3 and 16)	18,656	17,328	175,602
Deferred tax assets (Note 14)	9,752	11,039	91,792
Net defined benefit asset	46	60	433
Other assets	8,807	7,877	82,897
Total investments and other assets	75,958	73,461	714,966
Total assets	¥671,799	¥602,961	\$6,323,409

See accompanying notes.

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2018	2017	2018
LIABILITIES AND NET ASSETS			
Current liabilities:			
Short-term loans payable (Notes 5 and 16)	¥ 33,782	¥ 35,550	\$ 317,978
Long-term debt due within one year (Notes 5 and 16)	3,027	1,878	28,492
Notes and accounts payable—trade (Note 16):			
Unconsolidated subsidiaries and affiliated companies	494	436	4,650
Other	73,269	73,760	689,655
Income taxes payable	7,602	7,780	71,555
Accrued expenses	37,616	34,049	354,066
Deferred tax liabilities (Note 14)	81	70	762
Other current liabilities (Notes 16 and 17)	41,867	34,557	394,079
Total current liabilities	197,742	188,084	1,861,276
Non-current liabilities:			
Long-term debt (Notes 5 and 16)	33,610	25,843	316,359
Liability for retirement benefits (Note 6)	14,262	17,295	134,243
Deferred tax liabilities (Note 14)	4,489	4,696	42,253
Other non-current liabilities	5,821	5,926	54,791
Total non-current liabilities	58,184	53,762	547,666
Total liabilities	255,926	241,846	2,408,942
Contingent liabilities (Note 7)			
Net assets (Note 8):			
Shareholders' equity:			
Common stock:			
Authorized - 500,000,000 shares			
Issued - 198,208,086 shares in 2018 and 2017	38,730	38,730	364,552
Capital surplus	56,065	56,071	527,720
Retained earnings	213,790	172,677	2,012,331
Treasury stock - 2,304,021 shares in 2018 and 2,302,846 shares in 2017	(3,497)	(3,493)	(32,916)
Total shareholders' equity	305,088	263,985	2,871,687
Accumulated other comprehensive income			
Net unrealized gains on securities	4,734	4,479	44,559
Net deferred losses on hedges	(0)	(0)	(0)
Revaluation reserve for land (Note 9)	(505)	(506)	(4,753)
Foreign currency translation adjustments	(5,339)	(8,481)	(50,254)
Retirement benefits liability adjustments	(2,800)	(4,976)	(26,355)
Total accumulated other comprehensive income (loss)	(3,912)	(9,483)	(36,822)
Subscription rights to shares (Note 21)	333	248	3,134
Non-controlling interests	114,362	106,365	1,076,450
Total net assets	415,872	361,114	3,914,458
Total liabilities and net assets	¥671,799	¥602,961	\$6,323,409

	Yen		U.S. dollars (Note 1)
	2018	2017	2018
Amounts per share of common stock:			
Net assets	¥1,537.37	¥1,299.11	\$14.47

See accompanying notes.

Consolidated Statement of Income and Comprehensive Income

Alps Electric Co., Ltd. and Consolidated Subsidiaries
For the years ended March 31, 2018 and 2017

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2018	2017	2018
Net sales	¥858,317	¥753,262	\$8,079,038
Costs and expenses:			
Cost of sales (Note 12)	669,721	601,711	6,303,850
Selling, general and administrative expenses (Notes 11 and 12)	116,688	107,177	1,098,343
	786,410	708,889	7,402,203
Operating income	71,907	44,373	676,835
Other income (expenses):			
Interest and dividend income	986	847	9,281
Equity in earnings of affiliates	–	629	–
Gain on sales of mold	347	152	3,266
Subsidy income	309	296	2,909
Interest expense	(768)	(499)	(7,229)
Foreign exchange gains (losses), net	(3,064)	(580)	(28,840)
Equity in losses of affiliates	(25)	–	(235)
Commission fee	(2,354)	(349)	(22,157)
Loss on pension liabilities	–	(742)	–
Loss on interruption of engineering work	–	(599)	–
Gain on sales of shares of subsidiaries and affiliated companies	–	7,696	–
Impairment loss	(275)	(164)	(2,588)
Loss on valuation of investment securities	(767)	–	(7,220)
Other, net (Note 13)	(1,071)	(1,558)	(10,081)
	(6,684)	5,127	(62,914)
Profit before income taxes	65,222	49,501	613,912
Income taxes (Note 14):			
Current	13,350	14,864	125,659
Deferred	(3,059)	(6,468)	(28,793)
	10,291	8,395	96,866
Profit	54,931	41,105	517,046
Profit attributable to owners of parent	47,390	34,920	446,066
Profit attributable to non-controlling interests	7,541	6,184	70,981
Profit	54,931	41,105	517,046
Other comprehensive income (Note 20)			
Net unrealized gains on securities	1,176	1,489	11,069
Net deferred gains (losses) on hedges	(1)	4	(9)
Foreign currency translation adjustments	4,010	(6,059)	37,745
Retirement benefits liability adjustments	2,696	2,606	25,377
Share of other comprehensive income (loss) of affiliated companies accounted for by the equity method	(36)	(1,713)	(339)
	7,845	(3,672)	73,842
Comprehensive income	¥ 62,776	¥ 37,432	\$ 590,889
Comprehensive income attributable to:			
Owners of parent	¥ 52,971	¥ 32,104	\$ 498,598
Non-controlling interests	9,805	5,327	92,291
Amounts per share of common stock:			
Basic profit attributable to owners of parent per share	¥241.91	¥178.25	\$2.28
Diluted profit attributable to owners of parent per share	241.82	178.20	2.28
Cash dividends applicable to the year	37.00	30.00	0.35

See accompanying notes.

Consolidated Statement of Changes in Net Assets

Alps Electric Co., Ltd. and Consolidated Subsidiaries
For the years ended March 31, 2018 and 2017

	Shareholders' equity					
	Number of shares of common stock	Common stock	Capital surplus	Retained earnings	Treasury stock	Millions of yen
Balance at April 1, 2016	198,208,086	¥38,730	¥57,248	¥143,650	¥(3,505)	
Cumulative effects of changes in accounting policy				4		
Restated balance				38,730	57,248	143,655
Conversion of convertible bonds						(3,505)
Dividends						(5,877)
Profit attributable to owners of parent						34,920
Purchase of treasury stock						(3)
Disposal of treasury stock						15
Change of scope of equity method						(1)
Reversal of revaluation reserve for land						(19)
Change in treasury shares of parent arising from transactions with non-controlling shareholders						(1,184)
Changes in items other than shareholders' equity, net						
Balance at March 31, 2017	198,208,086	38,730	56,071	172,677	(3,493)	
Cumulative effects of changes in accounting policy						
Restated balance				38,730	56,071	172,677
Conversion of convertible bonds						(3,493)
Dividends						(6,268)
Profit attributable to owners of parent						47,390
Purchase of treasury stock						(3)
Disposal of treasury stock						21
Change of scope of equity method						(1)
Reversal of revaluation reserve for land						(19)
Change in treasury shares of parent arising from transactions with non-controlling shareholders						(1,184)
Changes in items other than shareholders' equity, net						
Balance at March 31, 2018	198,208,086	¥38,730	¥56,065	¥213,790	¥(3,497)	
	Accumulated other comprehensive income					
	Net unrealized gains on securities	Net deferred losses on hedges	Revaluation reserve for land	Foreign currency translation adjustments	Retirement benefits liability adjustments	Subscription rights to shares
Balance at April 1, 2016	¥3,946	¥(2)	¥(526)	¥(3,518)	¥(7,528)	¥179
Cumulative effects of changes in accounting policy						
Restated balance	3,946	(2)	(526)	(3,518)	(7,528)	179
Conversion of convertible bonds						103,097
Dividends						34,920
Profit attributable to owners of parent						(5,877)
Purchase of treasury stock						(3)
Disposal of treasury stock						21
Change of scope of equity method						(1)
Reversal of revaluation reserve for land						(19)
Change in treasury shares of parent arising from transactions with non-controlling shareholders						(1,184)
Changes in items other than shareholders' equity, net	533	1	20	(4,962)	2,551	68
						3,267
Balance at March 31, 2017	4,479	(0)	(506)	(8,481)	(4,976)	248
Cumulative effects of changes in accounting policy						
Restated balance	4,479	(0)	(506)	(8,481)	(4,976)	248
Conversion of convertible bonds						106,365
Dividends						361,114
Profit attributable to owners of parent						(6,268)
Purchase of treasury stock						47,390
Disposal of treasury stock						(3)
Change of scope of equity method						–
Reversal of revaluation reserve for land						–
Change in treasury shares of parent arising from transactions with non-controlling shareholders						–
Changes in items other than shareholders' equity, net	255	(0)	0	3,141	2,176	85
						7,997
Balance at March 31, 2018	¥4,734	¥(0)	¥(505)	¥(5,339)	¥(2,800)	¥333
						¥114,362
						¥415,872

Consolidated Statement of Changes in Net Assets

Alps Electric Co., Ltd. and Consolidated Subsidiaries
For the years ended March 31, 2018 and 2017

	Thousands of U.S. dollars (Note 1)							
	Common stock	Capital surplus	Retained earnings	Treasury stock				
Balance at March 31, 2017	\$364,552	\$527,777	\$1,625,348	\$32,878				
Cumulative effects of changes in accounting policy								
Restated balance	364,552	527,777	1,625,348	(32,878)				
Conversion of convertible bonds								
Dividends			(58,998)					
Profit attributable to owners of parent			446,066					
Purchase of treasury stock				(28)				
Disposal of treasury stock								
Change of scope of equity method								
Reversal of revaluation reserve for land			(75)					
Change in treasury shares of parent arising from transactions with non-controlling shareholders			(47)					
Changes in items other than shareholders' equity, net								
Balance at March 31, 2018	\$364,552	\$527,720	\$2,012,331	\$32,916				
Accumulated other comprehensive income								
	Net unrealized gains on securities	Net deferred losses on hedges	Revaluation reserve for land	Foreign currency translation adjustments	Retirement benefits liability adjustments	Subscription rights to shares	Non-controlling interests	Total net assets
Balance at March 31, 2017	\$42,159	\$0	(\$4,763)	(\$79,829)	(\$46,837)	2,334	\$1,001,177	\$3,399,040
Cumulative effects of changes in accounting policy								
Restated balance	42,159	(0)	(4,763)	(79,829)	(46,837)	2,334	1,001,177	3,399,040
Conversion of convertible bonds								–
Dividends							(58,998)	
Profit attributable to owners of parent							446,066	
Purchase of treasury stock							(28)	
Disposal of treasury stock							–	
Change of scope of equity method							–	
Reversal of revaluation reserve for land							(75)	
Change in treasury shares of parent arising from transactions with non-controlling shareholders							(47)	
Changes in items other than shareholders' equity, net	2,400	(0)	0	29,565	20,482	800	75,273	128,520
Balance at March 31, 2018	\$44,559	\$0	(\$4,753)	\$50,254	(\$26,355)	\$3,134	\$1,076,450	\$3,914,458

See accompanying notes.

Consolidated Statement of Cash Flows

Alps Electric Co., Ltd. and Consolidated Subsidiaries
For the years ended March 31, 2018 and 2017

	Millions of yen	Thousands of U.S. dollars (Note 1)	
	2018	2017	2018
Cash flows from operating activities:			
Profit before income taxes	¥ 65,222	¥ 49,501	\$ 613,912
Depreciation and amortization	36,004	33,076	338,893
Increase in accrued bonuses	1,481	485	13,940
Decrease in liability for retirement benefits	(1,467)	(3,070)	(13,808)
Gain on sales of shares of subsidiaries and affiliated companies	–	(7,896)	–
Increase in notes and accounts receivable—trade	(9,229)	(27,944)	(86,869)
Increase in inventories	(4,700)	(4,468)	(44,239)
Increase (decrease) in notes and accounts payable—trade	(4,283)	9,571	(40,314)
Other, net	348	6,021	3,276
Subtotal	83,375	55,476	784,780
Interest and dividends received	1,139	926	10,721
Interest paid	(771)	(509)	(7,257)
Income taxes paid	(13,356)	(14,289)	(125,715)
Net cash provided by operating activities	70,387	41,603	662,528
Cash flows from investing activities:			
Payments into time deposits	(1,047)	(762)	(9,855)
Proceeds from withdrawal of time deposits	1,262	437	11,879
Purchase of property, plant and equipment	(61,075)	(41,087)	(574,878)
Purchase of intangible assets	(6,233)	(6,394)	(58,669)
Proceeds from sales of shares of subsidiaries and affiliated companies	–	9,398	–
Other, net	371	426	3,492
Net cash used in investing activities	(66,722)	(37,981)	(628,031)
Cash flows from financing activities:			
Net increase (decrease) in short-term loans payable	(2,703)	14,406	(25,442)
Proceeds from long-term loans payable	10,697	8,350	100,687
Repayment of long-term loans payable	(1,874)	(12,704)	(17,639)
Cash dividends paid	(6,268)	(5,877)	(58,998)
Dividends paid to non-controlling interests	(2,048)	(1,948)	(19,277)
Payments from changes in ownership interests in subsidiaries that do not result in change in scope of consolidation	–	(1,250)	–
Other, net	(759)	(1,285)	(7,144)
Net cash used in financing activities	(2,957)	(309)	(27,833)
Effect of exchange rate change on cash and cash equivalents			
Net increase (decrease) in cash and cash equivalents	2,079	(2,163)	19,569
Cash and cash equivalents at beginning of year	2,786	1,148	26,224
Cash and cash equivalents at end of year (Note 16)	117,991	116,843	1,110,608
	¥120,778	¥117,991	\$1,136,841

See accompanying notes.

Notes to Consolidated Financial Statements

Alps Electric Co., Ltd. and Consolidated Subsidiaries

■ 1. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS

The accompanying consolidated financial statements of Alps Electric Co., Ltd. (the "Company") and consolidated subsidiaries are prepared on the basis of accounting principles generally accepted in Japan, which are different in certain respects as to the application and disclosure requirements of International Financial Reporting Standards, and are compiled from the consolidated financial statements prepared by the Company as required by the Financial Instruments and Exchange Law of Japan.

In preparing the accompanying consolidated financial statements, certain reclassifications have been made to the consolidated financial statements issued domestically in order to present them in a form which is more familiar to readers outside Japan. In addition, the notes to the accompanying consolidated financial statements include information which is not required under accounting principles generally accepted in Japan but is presented herein as additional information.

As permitted by the Financial Instruments and Exchange Law, amounts of less than one million yen have been omitted. Consequently, the totals shown in the accompanying consolidated financial statements (both in yen and U.S. dollars) do not necessarily agree with the sum of the individual amounts.

The accompanying consolidated financial statements are stated in Japanese yen. The translation of Japanese yen amounts into U.S. dollar amounts is included solely for the convenience of readers outside Japan at the prevailing exchange rate on March 31, 2018, which was ¥106.24 to U.S. \$1.00.

The translation should not be construed as a representation that the Japanese yen could be converted into U.S. dollars at the above or any other rate of exchange.

■ 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Consolidation

The accompanying consolidated financial statements include the accounts of the Company and substantially all of its subsidiaries. All significant intercompany transactions and accounts are eliminated in consolidation.

(b) Equity method

Investments in affiliated companies are accounted for by the equity method.

(c) Cash equivalents

In preparing the accompanying consolidated statement of cash flows, the Company considers all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents.

(d) Investment securities

Investment securities other than those in subsidiaries and affiliated companies are classified into three categories: trading, held-to-maturity or other securities. Trading securities are carried at fair value and held-to-maturity securities are carried at amortized cost. Marketable securities classified as other securities are carried at fair value with any changes in unrealized gain or loss, net of income taxes, included directly in net assets. Non-marketable securities classified as other securities are carried at cost. Cost of securities sold is determined by the moving average method.

(e) Allowance for doubtful accounts

The allowance for doubtful accounts is provided at an amount sufficient to cover possible losses on collection. The allowance consists of the estimated uncollectible amounts with respect to specific receivables plus a percentage based on historical credit losses.

(f) Inventories

Inventories held by the Company, its domestic consolidated subsidiaries and its foreign consolidated subsidiaries in Asia are principally stated at the lower of average cost or net realizable value. Inventories held by its foreign consolidated subsidiaries in the United States and Europe are stated at the lower of moving average cost or net realizable value.

(g) Property, plant and equipment and depreciation (excluding leased assets)

Property, plant and equipment is stated at cost. The Company and its consolidated subsidiaries compute depreciation of property, plant and equipment mainly by the straight-line method over the estimated useful lives of the respective assets. Certain domestic consolidated subsidiaries apply the declining-balance method, except with respect to certain buildings, at rates based on their respective estimated useful lives. Depreciation of buildings purchased on or after April 1, 1998 and facilities attached to buildings and other non-building structures purchased on or after April 1, 2016 is computed by the straight-line method.

The estimated useful lives are summarized as follows:

Buildings and structures 2 – 80 years

Machinery and equipment 1 – 20 years

(h) Intangible assets and amortization (excluding leased assets)

Intangible assets consist of software and goodwill. Goodwill means the net excess of the acquisition cost of the Company's investments in consolidated subsidiaries over the fair value of the net assets of those companies and is amortized by the straight-line method over a period of 5 years. Software for internal use is amortized by the straight-line method over its estimated useful lives ranging from 2 to 10 years. Software for sale to the market is amortized at the greater of either the amount based on sales in the year, as a proportion of total estimated sales, or the amount calculated on a straight-line basis over the remaining salable period.

(i) Leased assets

Assets held under finance leases, which transfer the ownership of the leased assets to the lessees, are depreciated by the same method as used for their own property, plant and equipment.

Assets held under finance leases, except those leases which transfer the ownership of the leased assets to the lessees, are depreciated by the straight-line method over their useful lives, which are the same as the term of the lease.

(j) Foreign currency translation

Foreign currency transactions

All financial assets and liabilities denominated in foreign currencies are translated into Japanese yen at the exchange rates prevailing at the balance sheet date.

Foreign currency financial statements

The assets and liabilities of the foreign consolidated subsidiaries are translated into Japanese yen at current exchange rates prevailing at the balance sheet date. Revenue and expense accounts are translated at the average exchange rates prevailing during the year. Foreign currency translation adjustments are included in net assets.

(k) Accrued employees' bonuses

Accrued employees' bonuses at the balance sheet date are based on an estimate of the amounts to be paid as bonuses for services rendered by employees by that date.

(l) Accrued directors' bonuses

Accrued directors' bonuses at the balance sheet date are based on an estimate of the amounts to be paid as bonuses for services rendered by directors by that date.

(m) Accrued product warranties

Accrued product warranties are recognized for specific claims on goods sold. In addition, for sales not subject to accrual for specific warranty claims, accrual for product warranties are estimated based on historical experience of the ratio of warranty claims incurred against net sales in the corresponding fiscal year.

(n) Retirement benefits

Accrued retirement benefits and prepaid pension cost for employees have been recorded mainly at the amount calculated based on the retirement benefit obligation and the fair value of the pension plan assets as of the balance sheet date.

The retirement benefit obligation for employees is attributed to each period by the benefit formula method.

Actuarial gain or loss is amortized by the straight-line method over a period within the average remaining years of service of the eligible employees (mainly from 12 to 15 years) from the fiscal year following the respective fiscal year of recognition. Prior service cost is amortized by the straight-line method over a period within the average remaining years of service of the eligible employees (1 year, except certain domestic consolidated subsidiaries that apply a period of 13 years).

Unrecognized actual gains and losses and unrecognized prior service cost are recorded in net assets, adjusted for tax effects as retirement benefits liability adjustments in accumulated other comprehensive income.

(o) Accrued directors' severance costs

Certain domestic consolidated subsidiaries provide accrued directors' severance cost based on their internal corporate policies.

(p) Allowance for environmental preservation costs

Allowance for environmental preservation costs is provided at the estimated amount needed to restore certain land from soil pollution and to dispose of polluted soil and poisonous material.

(q) Basis for revenue recognition on finance leases

With respect to finance leases for which the ownership of the leased assets is not transferred to the lessees, the Company, as a lessor, recognizes sales at the amount of lease income and cost of sales at the amount of lease income less interest at the time the Company receives the lease fee.

(r) Income taxes

Deferred tax assets and liabilities are recorded based on the temporary differences between the tax bases of assets and liabilities and their reported amounts in the accompanying consolidated financial statements using the enacted tax rates in effect for the years in which the temporary differences are expected to reverse. Deferred tax assets are also recognized for the estimated future tax effects attributable to tax loss carryforwards. A valuation allowance is recorded to reduce deferred tax assets if it is more likely than not that some or all of the deferred tax assets will not be realized.

(s) Amounts per share of common stock

Basic net income per share is computed based on the profit attributable to owners of parent and the weighted average number of shares outstanding during the year. Diluted net income per share is computed based on the profit attributable to owners of parent and the weighted average number of shares outstanding during each year after giving effect to the dilutive potential of shares of common stock to be issued upon the exercise of warrants and stock subscription rights.

Net assets per share are computed based on the net assets excluding share subscription rights and non-controlling interests and the number of shares of common stock outstanding at the year end.

Cash dividends per share of common stock reflect the actual amounts declared for each of the fiscal years.

(t) Derivative financial instruments

In the normal course of business, the Company and its consolidated subsidiaries enter into various derivative transactions to manage their exposure to risks arising from fluctuations in foreign currency exchange rates and interest rates. The Company and its consolidated subsidiaries generally recognize all derivatives in the balance sheet at fair value.

Changes in the fair value of derivatives

Changes in the fair value of forward foreign exchange contracts, currency swaps, currency options and coupon swaps designated as hedges of recognized assets or liabilities are recognized in earnings and losses. Changes in the fair value of these derivatives which are designated as hedges of forecasted transactions are deferred until the corresponding hedged transactions are recognized in earnings and losses.

Interest rate swap agreements

Interest rate swap agreements are not recognized at fair value if the agreements meet the criteria for application of the exceptional treatment for the recognition of derivatives at fair value. The differentials to be paid or received relating to the interest rate swap agreements are recognized as interest over the life of each of the agreements.

(u) Accounting for consumption taxes

Transactions subject to consumption taxes are recorded at amounts exclusive of consumption taxes.

(v) Adoption of consolidated taxation system

The Company and certain of its consolidated subsidiaries have adopted the consolidated taxation system.

(w) Reclassifications

Certain prior-year amounts have been reclassified to conform to the presentation in current year.

(x) Accounting standards issued but not yet effective

Implementation Guidance on Tax Effect Accounting and Implementation Guidance on Recoverability of Deferred Tax Assets.

On February 16, 2018, the ASBJ issued "Implementation Guidance on Tax Effect Accounting" (ASBJ Guidance No.28) and "Implementation Guidance on Recoverability of Deferred Tax Assets" (revised 2018) (ASBJ Guidance No.26).

(1) Overview

The accounting treatment for taxable temporary differences related to investments in subsidiaries when an entity prepares separate financial statements was modified. In addition, the accounting treatment related to the recoverability of deferred tax assets in entities that qualify as Category I was clarified.

(2) Scheduled date of adoption

The Company expects to adopt the implementation guidance from the beginning of the fiscal year ending March 31, 2019.

(3) Impact of the adoption of implementation guidance

The Company is currently evaluating the effect of the adoption of this implementation guidance on its consolidated financial statements.

Accounting Standard and Implementation Guidance on Revenue Recognition

On March 30, 2018, the ASBJ issued "Accounting Standard for Revenue Recognition" (ASBJ Statement No.29) and "Implementation Guidance on Accounting Standard for Revenue Recognition" (ASBJ Guidance No.30).

(1) Overview

This is a comprehensive accounting standard for revenue recognition. Specifically, the accounting standard establishes the following five-step model that will apply to revenue from customers:

1. Identify the contract(s) with a customer
2. Identify the performance obligations in the contract
3. Determine the transaction price
4. Allocate the transaction price to the performance obligations in the contract
5. Recognize revenue when (or as) the entity satisfies a performance obligation

(2) Scheduled date of adoption

The Company expects to adopt the accounting standard and implementation guidance from the beginning of the fiscal year ending March 31, 2022.

(3) Impact of the adoption of accounting standard and implementation guidance

The Company is currently evaluating the effect of the adoption of this accounting standard and implementation guidance on its consolidated financial statements.

■ 3. INVESTMENT SECURITIES

Securities classified as other securities at March 31, 2018 and 2017 are summarized as follows:

	Millions of yen			Thousands of U.S. dollars		
	2018			2018		
	Fair value	Cost	Unrealized gains (losses)	Fair value	Cost	Unrealized gains (losses)
Securities for which fair value exceeds cost: Equity securities	¥17,587	¥3,905	¥13,682	\$165,540	\$36,756	\$128,784
Securities for which cost exceeds fair value: Equity securities	68	84	(15)	640	791	(141)
Total	¥17,656	¥3,989	¥13,666	\$166,190	\$37,547	\$128,633

	Millions of yen		
	2017		
	Fair value	Cost	Unrealized gains (losses)
Securities for which fair value exceeds cost: Equity securities	¥15,869	¥3,864	¥12,004
Securities for which cost exceeds fair value: Equity securities	77	111	(34)
Total	¥15,946	¥3,976	¥11,970

Note: Non-marketable securities and other at March 31, 2018 and 2017 in the amounts of ¥999 million (\$9,403 thousand) and ¥1,350 million, respectively, have been excluded from the above table because it is extremely difficult to determine the fair value.

Proceeds from sales of securities classified as other securities for the years ended March 31, 2018 and 2017 were ¥1 million (\$9 thousand) and ¥2,661 million, respectively.

Gross realized gains and losses for the year ended March 31, 2018 were ¥0 million (\$0 thousand) and nil, respectively. Gross realized gains and losses for the year ended March 31, 2017 were ¥901 million and ¥15 million, respectively.

The impairment losses of ¥767 million (\$7,220 thousand) and nil on securities for the years ended March 31, 2018 and 2017 were recorded for non-marketable equity securities at ¥767 million (\$7,220 thousand) and nil; for the shares of companies that have business relationships with the Company at ¥0 million (\$0 thousand) and nil, respectively.

As for securities whose fair values at the year end are less than 70% of the acquisition costs deemed to be unrecoverable, the impairment losses are recognized in principle.

■ 4. INVENTORIES

Inventories at March 31, 2018 and 2017 consisted of the following:

	Millions of yen			Thousands of U.S. dollars			
	2018			2018			
Finished products	¥59,693	¥55,109	\$561,869	Work in process	11,496	10,963	108,208
Raw materials and supplies	24,936	23,556	234,714				
	¥96,126	¥89,629	\$904,800				

Inventories are stated at the lower of cost or net realizable value. The following loss on valuation of inventories is included in the cost of sales for the years ended March 31, 2018, and 2017, respectively:

	Millions of yen			Thousands of U.S. dollars		
	2018	2017	2018	2018	2017	2018
	¥1,747	¥421	\$16,444			

■ 5. SHORT-TERM LOANS PAYABLE AND LONG-TERM DEBT

Average interest rates for short-term loans payable, consisting primarily of overdrafts with banks, were 1.54% and 0.99% at March 31, 2018 and 2017, respectively.

Long-term debt at March 31, 2018 and 2017 is summarized as follows:

	Millions of yen 2018	Thousands of U.S. dollars 2017	Thousands of U.S. dollars 2018
Loans principally from banks and insurance companies due over 1 year at average interest rates of 0.64% and 0.27% at March 31, 2018 and 2017, respectively	¥33,610	¥25,843	\$316,359
Loans principally from banks and insurance companies due within 1 year at average interest rates of 2.33% and 0.92% at March 31, 2018 and 2017, respectively	3,027	1,878	28,492
	¥36,637	¥27,722	\$344,851

At March 31, 2018 and 2017, the following assets were pledged as collateral for bank loans and long-term debt:

	Millions of yen 2018	Thousands of U.S. dollars 2017	Thousands of U.S. dollars 2018
Land	¥1,389	¥1,389	\$13,074
Building and structures	1,733	1,856	16,312
Total	¥3,123	¥3,246	\$29,396

At March 31, 2018 and 2017, such collateral secured the following obligations:

	Millions of yen 2018	Thousands of U.S. dollars 2017	Thousands of U.S. dollars 2018
Long-term debt due within one year	¥ 96	¥166	\$ 904
Long-term debt	60	157	565
Total	¥157	¥323	\$1,478

The aggregate annual maturities of long-term debt subsequent to March 31, 2018 and 2017 are summarized as follows:

Year ending	Millions of yen 2018	Thousands of U.S. dollars 2018
2019	¥ 3,027	\$ 28,492
2020	6,710	63,159
2021	24,400	229,669
2022	1,500	14,119
2023	1,000	9,413
2024 and thereafter	–	–
Total	¥36,637	\$344,851
Year ending	Millions of yen 2017	
2018	¥ 1,878	
2019	213	
2020	1,129	
2021	23,500	
2022	1,000	
2023 and thereafter	–	
Total	¥27,722	

■ 6. RETIREMENT BENEFITS

The Company and certain consolidated subsidiaries have defined benefit plans, including a multi-employer corporate pension plan, a defined benefit corporate pension plan and lump-sum payment plans.

According to the Company's rules, employees may, in the event of involuntary retirement, be entitled to additional payments of retirement benefits, which are not reflected in the actuarial calculation of the projected benefit obligations.

The Company and certain of its consolidated subsidiaries have defined contribution pension plans.

In addition, a foreign consolidated subsidiary has a public pension plan.

Defined benefit plans

(1) The changes in the retirement benefit obligation for the years ended March 31, 2018 and 2017 are as follows:

	Millions of yen 2018	Thousands of U.S. dollars 2017	Thousands of U.S. dollars 2018
Retirement benefit obligation, beginning balance	¥70,487	¥74,718	\$663,470
Increase mainly due to the effect of changing calculation method from simplified method to standard method as a result of merger	1,222	–	11,502
Service cost	2,767	3,239	26,045
Interest cost	418	404	3,934
Actuarial gain or loss	(617)	128	(5,808)
Retirement benefits paid	(3,512)	(8,502)	(33,057)
Other	0	499	0
Retirement benefit obligation, ending balance	¥70,767	¥70,487	\$666,105

(2) The changes in plan assets for the years ended March 31, 2018 and 2017 are as follows:

	Millions of yen 2018	Thousands of U.S. dollars 2017	Thousands of U.S. dollars 2018
Plan assets, beginning balance	¥53,253	¥53,947	\$501,252
Expected return on plan assets	2,081	1,983	19,588
Actuarial gain or loss	2,325	174	21,884
Employer contributions	2,083	2,199	19,607
Retirement benefits paid	(3,207)	(5,118)	(30,186)
Other	14	65	132
Plan assets, ending balance	¥56,551	¥53,253	\$532,295

(3) The amounts recognized in the consolidated balance sheet as of March 31, 2018 and 2017 consist of:

	Millions of yen 2018	Thousands of U.S. dollars 2017	Thousands of U.S. dollars 2018
Funded retirement benefit obligations	¥ 67,570	¥ 67,678	\$ 636,013
Plan assets at fair value	(56,551)	(53,253)	(532,295)
Funded status	11,019	14,425	103,718
Unfunded retirement benefit obligations	3,196	2,809	30,083
Liability in the balance sheet, net	¥ 14,216	¥ 17,234	\$ 133,810
Liability for retirement benefits	¥ 14,262	¥ 17,295	\$ 134,243
Asset for retirement benefit	(46)	(60)	(433)
Liability in the balance sheet, net	14,216	17,234	133,810

(4) The amounts recognized in the consolidated statement of income for the years ended March 31, 2018 and 2017 consist of:

	Millions of yen	Thousands of U.S. dollars	
	2018	2017	2018
Service cost	¥ 2,767	¥ 3,239	\$ 26,045
Interest cost	418	404	3,934
Expected return on plan assets	(2,081)	(1,983)	(19,588)
Amortization of actuarial loss	564	745	5,309
Amortization of prior service cost	0	0	0
Other	74	79	697
Periodic pension cost for defined benefit plan	¥ 1,743	¥ 2,486	\$ 16,406

* In addition to the above-mentioned retirement benefit expenses, loss on pension liabilities of ¥742 million was recorded as other expenses for the year ended March 31, 2017.

(5) The components of retirement benefits liability adjustments included in other comprehensive income (before tax effect) for the years ended March 31, 2018 and 2017 are as follows:

	Millions of yen	Thousands of U.S. dollars	
	2018	2017	2018
Prior service cost	¥ (0)	¥ (0)	\$ (0)
Actuarial gain and loss	(3,506)	(791)	(33,001)
Total	¥(3,507)	¥(792)	\$(33,010)

(6) The components of retirement benefits liability adjustments included in accumulated other comprehensive income (before tax effect) as of March 31, 2018 and 2017 are as follows:

	Millions of yen	Thousands of U.S. dollars	
	2018	2017	2018
Unrecognized prior service cost	¥ 5	¥ 5	\$ 47
Unrecognized actuarial losses	3,902	6,866	36,728
Total	¥3,907	¥6,872	\$36,775

(7) The fair value of plan assets, by major category, as a percentage of total plan assets as of March 31, 2018 and 2017 comprised the following:

	2018	2017
Bonds	26.2%	30.0%
Stocks	37.6%	28.8%
Insurance	4.4%	8.6%
Cash and cash equivalents	15.8%	6.9%
Alternative (*)	15.9%	25.6%
Other	0.1%	0.1%
Total	100.0%	100.0%

*Alternative included investments in funds of hedge funds and multi assets.

(8) The principal actuarial assumptions used in accounting for the defined benefit plans for the years ended March 31, 2018 and 2017 are as follows:

	2018	2017
Discount rate	Mainly 0.5%	Mainly 0.5%
Expected rate of return on plan assets	Mainly 4.0%	Mainly 4.0%
Estimated rate of salary increase	Mainly 2.0%	Mainly 2.1%

The expected rate of return on plan assets has been estimated based on the anticipated allocation to each asset class and the expected long-term returns on assets held in each category.

Multi-employer plans

One of the Company's certain of domestic consolidated subsidiary participates in a multi-employer defined benefit pension plan and recognizes as net pension cost the related required contributions for the period. Information regarding the multi-employer pension plan for the years ended March 31, 2018 and 2017 is summarized as follows:

(1) Funded status

	Millions of yen	Thousands of U.S. dollars	
	2018	2017	2018
Pension assets	¥6,834	¥6,564	\$64,326
Pension liabilities	5,080	5,036	47,816
Funded status	¥1,753	¥1,527	\$16,500

(2) Number of employees of the Company's consolidated subsidiary participating in the multi-employer pension plan as a percentage of total participants in the plan

2018	2017
0.82%	0.72%

Defined contribution plans

The amounts paid to the defined contribution plans for the years ended March 31, 2018 and 2017 are as follows:

	Millions of yen	Thousands of U.S. dollars	
	2018	2017	2018
Defined contribution plan payment	¥961	¥927	\$9,046

7. COMMITMENTS

The Company and certain of its consolidated subsidiaries have entered into loan commitment agreements amounting to ¥40,000 million (\$376,506 thousand at March 31, 2018) with financial institutions at March 31, 2018 and 2017. The outstanding loans payable amounted to ¥900 million (\$8,471 thousand) and ¥4,000 million at March 31, 2018 and 2017, respectively. The unused balances amounted to ¥39,100 million (\$368,035 thousand) and ¥36,000 million under these credit facilities, at March 31, 2018 and 2017, respectively.

■ 8. NET ASSETS

The Corporation Law of Japan provides that an amount equal to 10% of the amount to be disbursed as distributions of capital surplus (other than the capital reserve) and retained earnings (other than the legal reserve) be transferred to the capital reserve and the legal reserve, respectively, until the sum of the capital reserve and the legal reserve equals 25% of the capital stock account. Such distributions can be made at any time by resolution of the stockholders, or by the Board of Directors if certain conditions are met.

Shares in Issue and Outstanding and Treasury Stock

The total number and periodic changes in the number of shares in issue and the total number and periodic changes in the number of shares of treasury stock for the years ended March 31, 2018 and 2017 are summarized as follows:

	Shares in Issue and Outstanding (Thousands)	Treasury Stock (Thousands)
Number of shares at March 31, 2016	198,208	2,310
Increase in number of shares	–	2
Decrease in number of shares	–	9
Number of shares at March 31, 2017	198,208	2,302
Increase in number of shares	–	1
Decrease in number of shares	–	–
Number of shares at March 31, 2018	198,208	2,304

During the year ended March 31, 2018, the increase of 1 thousand shares of treasury stock was due to the purchase of odd-lot shares.

During the year ended March 31, 2017, the increase of 2 thousand shares of treasury stock was due to the purchase of odd-lot shares. The decrease of 7 thousand shares of treasury stock was due to the exercising of stock subscription rights, the decrease of 2 thousand shares of treasury stock was due to the sales of shares to employees.

Stock subscription rights

The total number and periodic changes in the number of stock subscription rights for the year ended March 31, 2018 are summarized as follows:

Stock subscription rights of stock options

Company name	ALPS ELECTRIC CO., LTD.	ALPINE ELECTRONICS, INC.	ALPS LOGISTICS CO., LTD.
Class of stock	–	–	–
Number of shares at March 31, 2017	–	–	–
Increase in number of shares	–	–	–
Decrease in number of shares	–	–	–
Number of shares at March 31, 2018	–	–	–
Ending balance at March 31, 2018 (Millions of yen)	¥180	¥97	¥55

Dividends

The following appropriations of cash dividends, which has not been reflected in the accompanying consolidated financial statements for the year ended March 31, 2018, was approved at the ordinary general meeting of shareholders on June 22, 2018 and will go into effect on June 25, 2018:

	Millions of yen	Thousands of U.S. dollars
Cash dividends to be approved on June 22, 2018 (¥20.00 = \$0.19 per share)	¥3,918	\$36,879

The following appropriations of cash dividends to shareholders of common stock were approved at the ordinary general meeting of shareholders held on June 23, 2017 and at the meeting of the Board of Directors held on October 30, 2017 and were paid to shareholders of record as of March 31, 2017 and September 30, 2017, respectively, during the year ended March 31, 2018:

	Millions of yen
Cash dividends approved on June 23, 2017 (¥15.00 per share)	¥2,938
Cash dividends approved on October 30, 2017 (¥17.00 per share)	¥3,330

■ 9. REVALUATION OF LAND

On March 31, 2002, a domestic consolidated subsidiary revalued its land held for business purposes in accordance with the "Law on Land Revaluation." The method followed for this land revaluation was determined in accordance with the "Enforcement Act Concerning Land Revaluation." Differences arising from the land revaluation have been accounted for as revaluation reserve for land (non-controlling interests in net assets section for non-controlling portion) under net assets.

The excesses of the carrying value of this land after the revaluation over its fair value as of March 31, 2018 and 2017 were ¥971 million (\$9,140 thousand) and ¥1,231 million, respectively.

■ 10. REDUCTION ENTRY

The amount of the reduction entry and accumulated reduction entry for tangible fixed assets deducted from the acquisition cost of tangible fixed assets due to government subsidies, etc. are as follows:

	Millions of yen	Thousands of U.S. dollars	2018
Reduction entry for the years ended March 31, 2018 and 2017	2018	2017	2018
Buildings and structures	¥12	¥232	\$113
Machinery and equipment	–	9	–
Total	¥12	¥242	\$113

	Millions of yen	Thousands of U.S. dollars	2018
Accumulated reduction entry as of March 31, 2018 and 2017	2018	2017	2018
Buildings and structures	¥285	¥272	\$2,683
Machinery and equipment	35	35	329
Total	¥320	¥307	\$3,012

■ 11. SELLING, GENERAL AND ADMINISTRATIVE EXPENSES

Major items included in selling, general and administrative expenses for the years ended March 31, 2018 and 2017 were as follows:

	Millions of yen	Thousands of U.S. dollars	2018
Salaries	¥37,715	¥36,470	\$354,998
Research and development expenses	19,164	16,067	180,384
Commission expenses	12,989	10,798	122,261
Employees' bonuses	4,891	4,285	46,037
Warranty costs	1,917	1,648	18,044
Retirement benefit expense	1,126	1,288	10,599

■ 12. RESEARCH AND DEVELOPMENT EXPENSES

Research and development expenses included in cost of sales and general and administrative expenses were ¥29,799 million (\$280,488 thousand) and ¥32,279 million for the years ended March 31, 2018 and 2017, respectively.

■ 13. OTHER INCOME (EXPENSES)

The components of other, net, in the accompanying consolidated statement of income and comprehensive income for the years ended March 31, 2018 and 2017 were as follows:

	Millions of yen	Thousands of U.S. dollars	
	2018	2017	2018
Gain on sale of fixed assets	366	178	3,445
Gain on change in equity	147	–	1,384
Loss on sale and disposal of fixed assets	(880)	(1,113)	(8,283)
Loss on change in equity	–	(700)	–
Other	(704)	76	(6,627)
	¥(1,071)	¥(1,558)	\$10,081

■ 14. INCOME TAXES

The Company is subject to a number of taxes in Japan based on income, which, in the aggregate, resulted in statutory tax rates of approximately 30.7% and 30.6% for the years ended March 31, 2018 and 2017, respectively.

The following table summarizes the reconciliations between the statutory tax rates and the Company's effective tax rates reflected in the accompanying consolidated statement of income and comprehensive income for the years ended March 31, 2018 and 2017:

	2018	2017
Statutory tax rates	30.7%	30.6%
Change in valuation allowance	(13.3)	(7.4)
Lower tax rates at foreign subsidiaries	(3.5)	(4.1)
Effect of merger with subsidiaries	–	(2.6)
Capital levy on inhabitant tax	0.2	0.3
Non-deductible expenses	0.6	1.8
Effect of tax rate change	1.0	0.1
Other	0.1	(1.7)
Effective tax rates	15.8%	17.0%

The significant components of deferred tax assets and liabilities at March 31, 2018 and 2017 were as follows:

	Millions of yen	Thousands of U.S. dollars	
	2018	2017	2018
Deferred tax assets:			
Accrued employees' bonuses	¥ 3,173	¥ 2,931	\$ 29,866
Accrued warranty costs	628	942	5,911
Allowance for doubtful accounts	899	944	8,462
Income taxes payable	525	409	4,942
Accrued expenses	940	1,192	8,848
Liability for retirement benefit	3,990	4,708	37,556
Depreciation	10,845	9,898	102,080
Impairment losses for land	674	1,287	6,344
Accounts payable-directors' severance costs	190	285	1,788
Intercompany profit	5,395	4,645	50,781
Write-offs of investment securities	765	806	7,201
Write-offs of inventories	1,489	1,426	14,015
Tax loss carryforwards	7,553	12,021	71,094
Other	5,036	6,715	47,402
Gross deferred tax assets	42,102	48,209	396,291
Valuation allowance	(16,400)	(26,216)	(154,367)
Less deferred tax liabilities in the same tax jurisdiction	(6,308)	(4,335)	(59,375)
Total deferred tax assets	19,393	17,658	182,540
Deferred tax liabilities:			
Unrealized gain on investment securities	(4,263)	(3,337)	(40,126)
Undistributed retained earnings of foreign subsidiaries	(4,533)	(3,350)	(42,668)
Undistributed retained earnings of affiliated company accounted for by the equity method	(1,369)	(1,357)	(12,886)
Other	(715)	(1,059)	(6,730)
Gross deferred tax liabilities	(10,880)	(9,103)	(102,410)
Less deferred tax assets in the same tax jurisdiction	6,308	4,335	59,375
Total deferred tax liabilities	(4,572)	(4,768)	(43,035)
Net deferred tax assets	¥14,822	¥12,890	\$139,514

■ 15. CASH AND CASH EQUIVALENTS

A reconciliation between cash and time deposits in the accompanying consolidated balance sheets, and cash and cash equivalents in the accompanying statements of cash flows at March 31, 2018 and 2017 is as follows:

	Millions of yen	Thousands of U.S. dollars	
	2018	2017	2018
Cash and time deposits	¥121,554	¥118,968	\$1,144,145
Less:			
Time deposits with a maturity of more than three months when purchased	(775)	(976)	(7,295)
Cash and cash equivalents	¥120,778	¥117,991	\$1,136,841

Supplemental Disclosure of Non-Cash Transactions

The Company recorded assets and corresponding obligations for finance lease transactions amounting to ¥646 million (\$6,081 thousand) and ¥662 million for the years ended March 31, 2018 and 2017, respectively.

■ 16. FINANCIAL INSTRUMENTS

Overview

(1) Policy for financial instruments

In consideration of plans for capital investment mainly in manufacturing, marketing and sales of electric devices, the Company and its consolidated subsidiaries (collectively, the "Group") raise funds through bank borrowings. The Group manages temporary cash surpluses through low-risk financial assets. Further, the Group raises short-term capital through bank borrowings. The Group uses derivatives for the purpose of reducing risk and does not enter into derivative transactions for speculative or trading purposes.

(2) Types of financial instruments and related risk

Trade receivables—trade notes and accounts receivable—are exposed to credit risk in relation to customers. In addition, the Group is exposed to foreign currency exchange risk arising from receivables denominated in foreign currencies. In principle, the foreign currency exchange risks deriving from the trade receivables denominated in foreign currencies, net of trade payables denominated in the same currencies are hedged by forward foreign exchange contracts and currency swaps.

Marketable securities and investment securities are exposed to market risk. Those securities are mainly composed of shares of common stock of other companies with which the Group has business relationships.

Substantially all trade payables—trade notes and accounts payable—have payment due dates within four months.

Short-term debt and long-term debt are taken out principally for the purpose of making capital investments.

To reduce the risk of long-term debt bearing interest at variable rates, the Group utilizes interest rate swap transactions as a hedging instrument.

Regarding derivatives, the Group enters into forward foreign exchange contracts and currency swap transactions to reduce the foreign currency exchange risk arising from the receivables and payables denominated in foreign currencies.

Information regarding the method of hedge accounting, hedging instruments and hedged items is found in summary of significant accounting policies in Note 2.

(3) Risk management for financial instruments

(a) Monitoring of credit risk (the risk that customers or counterparties may default)

In accordance with the internal policies for managing credit risk of the Group arising from receivables, the related Sales Department manager monitors credit worthiness of main customers, and the Credit Control Department assesses the financial situation periodically. In addition, the Group is making efforts to identify and mitigate risks of bad debts.

The Group believes that the credit risk of derivatives is insignificant as it enters into derivative transactions only with financial institutions which have a sound credit profile.

(b) Monitoring of market risks (the risks arising from fluctuations in foreign exchange rates, interest rates and others)

For trade receivables and payables denominated in foreign currencies, the Group identifies the foreign currency exchange risk for each currency on a monthly basis and enters into forward foreign exchange contracts and currency swaps to hedge such risk. In order to mitigate the interest rate risk for loans payable bearing interest at variable rates, the Group may also enter into interest rate swap transactions.

For marketable securities and investment securities, the Group periodically reviews the fair values of such financial instruments and the financial position of the issuers. In addition, the Group continuously evaluates whether securities other than those classified as held-to-maturity should be maintained taking into account their fair values and relationships with the issuers.

In conducting derivative transactions, the division in charge of each derivative transaction follows the internal policies, which set forth delegation of authority and maximum upper limit on positions. Monthly reports including actual transaction data are submitted to the Board of Directors for their review.

(c) Monitoring of liquidity risk (the risk that the Group may not be able to meet its obligations on scheduled due dates)

Based on the business plan, the Group prepares and updates its cash flow plans on a timely basis to manage liquidity risk.

(4) Supplementary explanation of the estimated fair value of financial instruments

The fair value of financial instruments is based on their quoted market price, if available.

When there is no quoted market price available, fair value is reasonably estimated. Since various assumptions and factors are reflected in estimating the fair value, different assumptions and factors could result in different fair value. In addition, the notional amounts of derivatives in Note 17. DERIVATIVE FINANCIAL INSTRUMENTS are not necessarily indicative of the actual market risk involved in derivative transactions.

Estimated Fair Value of Financial Instruments

Carrying value of financial instruments on the consolidated balance sheet as of March 31, 2018 and 2017, their estimated fair value and unrealized gains are shown in the following table. The following table does not include financial instruments for which it is extremely difficult to determine the fair value. (Please refer to Note 2 below).

		Millions of yen			Thousands of U.S. dollars		
		2018			2018		
		Carrying value	Estimated fair value	Difference	Carrying value	Estimated fair value	Difference
Assets:	Cash and time deposits	¥121,554	¥121,554	¥ -	\$1,144,145	\$1,144,145	\$ -
	Notes and accounts receivable-trade	160,107	160,107	-	1,507,031	1,507,031	-
	Investment securities	23,845	28,723	4,878	224,445	270,360	45,915
	Total assets	¥305,507	¥310,386	¥4,878	\$2,875,631	\$2,921,555	\$45,915
Liabilities:	Notes and accounts payable-trade	¥ 73,764	¥ 73,764	¥ -	\$ 694,315	\$ 694,315	\$ -
	Short-term loans payable	33,782	33,782	-	317,978	317,978	-
	Long-term debt due within one year	3,027	3,027	-	28,492	28,492	-
	Long-term debt	33,610	33,527	(83)	316,359	315,578	(781)
	Total liabilities	¥144,185	¥144,102	¥ (83)	\$1,357,163	\$1,356,382	\$ (781)
Derivatives*		¥ 678	¥ 678	¥ -	\$ 6,382	\$ 6,382	\$ -

		Millions of yen		
		2017		
		Carrying value	Estimated fair value	Difference
Assets:	Cash and time deposits	¥118,968	¥118,968	¥ -
	Notes and accounts receivable-trade	146,128	146,128	-
	Investment securities	21,348	29,834	8,486
	Total assets	¥286,445	¥294,931	¥8,486
Liabilities:	Notes and accounts payable-trade	¥ 74,197	¥ 74,197	¥ -
	Short-term loans payable	35,550	35,550	-
	Long-term debt due within one year	1,878	1,878	-
	Long-term debt	25,843	25,890	47
	Total liabilities	¥137,469	¥137,517	¥ 47
Derivatives*		¥ (204)	¥ (204)	¥ -

*The value of assets and liabilities arising from derivatives is shown at net value, and with the amount in parentheses representing a net liability position.

Note 1: Methods to determine the estimated fair value of financial instruments and other matters related to securities and derivative transactions

(a) Cash and time deposits, and notes and accounts receivable-trade

Since these items are settled in a short period of time, their carrying value approximates fair value.

(b) Investment securities

The fair value of the investment securities is based on quoted market price. For information on securities classified by holding purpose, please refer to Note 3. INVESTMENT SECURITIES.

(c) Notes and accounts payable-trade, short-term loans payable and long-term debt due within one year

Since these items are settled in a short period of time, their carrying value approximates fair value.

(d) Long-term debt

The fair value of each long-term debt instrument is based on the present value of the total of principal and interest discounted by the interest rate that would be applied if similar new loans were entered into.

(e) Derivatives

Please refer to Note 17 DERIVATIVE FINANCIAL INSTRUMENTS.

Note 2: Financial instruments for which it is extremely difficult to determine the fair value

	Millions of yen		Thousands of U.S. dollars	
	2018	2017	2018	
	Carrying value	Carrying value		
Investment in unlisted stocks, unconsolidated subsidiaries, affiliated companies and others	¥1,416	¥1,965	\$13,328	

Because no quoted market price is available and it is extremely difficult to determine the fair value, the above financial instruments are not included in the preceding table presenting the estimated fair value of financial instruments.

Note 3: Redemption schedule for receivables and marketable securities with maturities at March 31, 2018 and 2017

	Millions of yen		Thousands of U.S. dollars	
	2018	2017	2018	
Due in one year or less	Cash and time deposits	¥121,554	¥118,968	\$1,144,145
	Notes and accounts receivable-trade	160,107	146,128	1,507,031
Total		¥281,662	¥265,096	\$2,651,186

Note 4: The redemption schedule for long-term debt is disclosed in Note 5. SHORT-TERM LOANS PAYABLE AND LONG-TERM DEBT. The aggregate annual maturities of finance lease obligations subsequent to March 31, 2018 and 2017 are summarized as follows:

Year ending	Millions of yen		Thousands of U.S. dollars
	2018	2018	
2018	¥ -	\$ -	
2019		598	5,629
2020		433	4,076
2021		223	2,099
2022		171	1,610
2023		140	1,318
2024 and thereafter		991	9,328
Total		¥2,559	\$24,087

Year ending	Millions of yen	
	2017	
2018	¥ 711	
2019	478	
2020	255	
2021	124	
2022	91	
2023 and thereafter	1,007	
-	-	
Total	¥2,670	

■ 17. DERIVATIVE FINANCIAL INSTRUMENTS

The Company has entered into forward foreign exchange contracts with banks to hedge transactions and balances denominated in foreign currencies. In addition, to hedge its exposure to fluctuations in interest rates, the Company has entered into interest rate swap agreements to effectively change the floating rates on the principal balance of its debt to fixed interest rates.

These derivative transactions are utilized solely for hedging purposes under the Company's internal control rules and are subject to oversight by the Board of Directors. The Company does not anticipate any credit loss from nonperformance by the counterparties to the forward foreign exchange contracts and interest rate swap agreements.

The notional amounts and estimated fair value of the derivative instruments outstanding at March 31, 2018 and 2017, to which hedge accounting has not been applied, are summarized as follows:

	Sell:	U.S. dollars	Millions of yen			Thousands of U.S. dollars		
			2018			2018		
			Notional amounts	Estimated fair value	Unrealized gains	Notional amounts	Estimated fair value	Unrealized gains
Forward foreign exchange contracts:	Sell:	U.S. dollars	¥30,812	¥555	¥555	\$290,023	\$5,224	\$5,224
	Euro		7,309	124	124	68,797	1,167	1,167

	Sell:	U.S. dollars	Millions of yen			Thousands of U.S. dollars		
			2017			2017		
			Notional amounts	Estimated fair value	Unrealized losses	Notional amounts	Estimated fair value	Unrealized losses
Forward foreign exchange contracts:	Sell:	U.S. dollars	¥18,492	¥154	¥154			
	Euro		7,600	50	50			

Note: Estimated fair values are computed on quotes from financial institutions.

The notional amounts and estimated fair value of the derivative instruments outstanding at March 31, 2018 and 2017, to which hedge accounting has been applied primarily to accounts receivables are summarized as follows:

	Sell:	Euro	Millions of yen			Thousands of U.S. dollars		
			2018			2017		
			Notional amounts	Estimated fair value	Notional amounts	Estimated fair value	Notional amounts	Estimated fair value
Forward foreign exchange contracts:	Sell:	Euro	¥1,306	¥(2)	¥1,077	¥(0)	\$12,293	\$19

Note: Estimated fair values are computed on quotes from financial institutions.

There was no interest-rate swaps transaction which meets specific criteria for hedge accounting for the years ended March 31, 2018 and 2017.

■ 18. LEASES

As lessee:

The Company's future minimum lease payments subsequent to March 31, 2018 and 2017 for non-cancelable operating leases are summarized as follows:

	Millions of yen	Thousands of U.S. dollars
	2018	2018
2019	¥2,004	\$18,863
2020 and thereafter	4,736	44,578
	¥6,740	\$63,441

	Millions of yen	
	2017	
2018	¥1,643	
2019 and hereafter	2,683	
	¥4,327	

As lessor:

Investment in lease assets consisted of the following:

	Millions of yen	Thousands of U.S. dollars
	2018	2017
Lease receivables	¥688	\$1,165
Interest portion of lease receivables	(43)	(75)
Investment in lease assets	¥645	\$1,090
	\$6,476	\$6,071

The collection schedules of lease receivables related to investment in lease assets at March 31, 2018 and 2017 are summarized as follows:

	Millions of yen	Thousands of U.S. dollars
	2018	2018
2019	¥ 549	\$ 5,168
2020	447	4,207
2021	345	3,247
2022	306	2,880
2023	137	1,290
2024 and thereafter	40	377
	¥1,827	\$17,197

	Millions of yen
	2017
2018	¥ 407
2019	317
2020	213
2021	111
2022	74
2023 and thereafter	41
	¥1,165

The Company's future minimum lease receivables subsequent to March 31, 2018 and 2017 for non-cancelable operating leases are summarized as follows:

	Millions of yen	Thousands of U.S. dollars
	2018	2018
2019	¥ 34	\$ 320
2020 and thereafter	73	687
	¥108	\$1,017
	2017	
2018	¥23	
2019 and thereafter	46	
	¥69	

■ 19. RELATED PARTY TRANSACTIONS

There were no transactions of the Company with a related party for the years ended March 31, 2018 and 2017.

■ 20. OTHER COMPREHENSIVE INCOME

The following table presents reclassification adjustments as amounts reclassified to profit for the years ended March 31, 2018 and 2017, which were recognized in other comprehensive income for the years ended March 31, 2018 and 2017, and tax effects allocated to each component of other comprehensive income for the years ended March 31, 2018 and 2017.

	Millions of yen	Thousands of U.S. dollars	
	2018	2017	2018
Net unrealized gains on securities:			
Amount arising during the year	¥1,297	\$ 2,909	\$12,208
Reclassification adjustments	394	(758)	3,709
Net unrealized gains on securities before tax effect	1,691	2,151	15,917
Tax effect	(515)	(661)	(4,848)
Net unrealized gains on securities	1,176	1,489	11,069
Net deferred gains (losses) on hedges:			
Amount arising during the year	(66)	(4)	(621)
Reclassification adjustments	64	8	602
Net deferred gains (losses) on hedges before tax effect	(1)	4	(9)
Tax effect	-	-	-
Net deferred gains (losses) on hedges	(1)	4	(9)
Foreign currency translation adjustments:			
Amount arising during the year	4,010	(6,059)	37,745
Retirement benefits liability adjustments:			
Amount arising during the year	2,942	46	27,692
Reclassification adjustments	564	746	5,309
Retirement benefits liability adjustments before tax effect	3,507	792	33,010
Tax effect	(810)	1,813	(7,624)
Retirement benefits liability adjustments	2,696	2,606	25,377
Share other comprehensive income (loss) of affiliated companies accounted for by the equity method:			
Amount arising during the year	(36)	(1,713)	(339)
Other comprehensive income (loss)	¥7,845	¥(3,672)	\$73,842

■ 21. STOCK OPTIONS

(1) Stock option expenses were recognized for the years ended March 31, 2018 and 2017 as follows:

	Millions of yen	Thousands of U.S. dollars	Millions of yen
	2018	2018	2017
Selling, general and administrative expenses	¥105	\$988	¥99

(2) Outline of stock options and changes

(i) Outline of stock options

First Series of Stock Subscription Rights (Stock compensation-type stock options)

Company name	ALPS ELECTRIC CO., LTD. *1	ALPINE ELECTRONICS, INC. *1	ALPS LOGISTICS CO., LTD. *1*2
Grantees	Total 12 Directors of the Company (Excluding outside directors)	Total 9 Directors of subsidiaries (Excluding outside directors and part time directors)	Total 7 Directors of subsidiaries (Excluding outside directors and part time directors)
Type and number of shares to be issued upon the exercise of the stock subscription rights	34,800 shares of common stock	22,700 shares of common stock	32,400 shares of common stock
Grant date	July 28, 2014	August 5, 2014	July 23, 2014
Conditions for vesting	Stock option rights are vested after six months has elapsed from the date of the general meeting of shareholders on June 20, 2014	Stock option rights are vested after six months has elapsed from the date of the general meeting of shareholders on June 19, 2014	Stock option rights are vested after six months has elapsed from the date of the general meeting of shareholders on June 18, 2014
Required service period	None	None	None
Exercise period	From July 29, 2014 to July 28, 2054	From August 6, 2014 to August 5, 2054	From July 24, 2014 to July 23, 2054

*1 The number of shares is shown.

*2 Shares, exercise price and average stock price at exercise have been restated, as appropriate, to reflect the two-for-one stock split on April 1, 2016.

Second Series of Stock Subscription Rights (Stock compensation-type stock options)

Company name	ALPS ELECTRIC CO., LTD. *1	ALPINE ELECTRONICS, INC. *1	ALPS LOGISTICS CO., LTD. *1*2
Grantees	Total 12 Directors of the Company (Excluding outside directors)	Total 10 Directors of subsidiaries (Excluding outside directors and part time directors)	Total 6 Directors of subsidiaries (Excluding outside directors and part time directors)
Type and number of shares to be issued upon the exercise of the stock subscription rights	14,100 shares of common stock	13,600 shares of common stock	18,000 shares of common stock
Grant date	July 24, 2015	August 4, 2015	July 22, 2015
Conditions for vesting	Stock option rights are vested after six months has elapsed from the date of the general meeting of shareholders on June 19, 2015	Stock option rights are vested after six months has elapsed from the date of the general meeting of shareholders on June 18, 2015	Stock option rights are vested after six months has elapsed from the date of the general meeting of shareholders on June 17, 2015
Required service period	None	None	None
Exercise period	From July 27, 2015 to July 26, 2055	From August 5, 2015 to August 4, 2055	From July 23, 2015 to July 22, 2055

*1 The number of shares is shown.

*2 Shares, exercise price and average stock price at exercise have been restated, as appropriate, to reflect the two-for-one stock split on April 1, 2016.

Third Series of Stock Subscription Rights (Stock compensation-type stock options)

Company name	ALPS ELECTRIC CO., LTD. *	ALPINE ELECTRONICS, INC. *	ALPS LOGISTICS CO., LTD. *
Grantees	Total 12 Directors (Excluding outside directors and audit and supervisory committee members)	Total 10 Directors of subsidiaries (Excluding outside directors, audit and supervisory committee members, and non-executive directors)	Total 6 Directors of subsidiaries (Excluding outside directors, audit and supervisory committee members, and non-executive directors)
Type and number of shares to be issued upon the exercise of the stock subscription rights	23,900 shares of common stock	35,600 shares of common stock	33,100 shares of common stock
Grant date	July 21, 2016	July 19, 2016	July 15, 2016
Conditions for vesting	Stock option rights are vested after six months has elapsed from the date of the general meeting of shareholders on June 23, 2016	Stock option rights are vested after six months has elapsed from the date of the general meeting of shareholders on June 22, 2016	Stock option rights are vested after six months has elapsed from the date of the general meeting of shareholders on June 21, 2016
Required service period	None	None	None
Exercise period	From July 22, 2016 to July 21, 2056	From July 20, 2016 to July 19, 2056	From July 16, 2016 to July 15, 2056

* The number of shares is shown.

Fourth Series of Stock Subscription Rights (Stock compensation-type stock options)

Company name	ALPS ELECTRIC CO., LTD. *	ALPINE ELECTRONICS, INC. *	ALPS LOGISTICS CO., LTD. *
Grantees	Total 12 Directors (Excluding outside directors and audit and supervisory committee members)	Total 10 Directors of subsidiaries (Excluding outside directors, audit and supervisory committee members, and non-executive directors)	Total 7 Directors of subsidiaries (Excluding outside directors, audit and supervisory committee members, and non-executive directors)
Type and number of shares to be issued upon the exercise of the stock subscription rights	17,000 shares of common stock	21,500 shares of common stock	27,000 shares of common stock
Grant date	July 24, 2017	July 20, 2017	July 19, 2017
Conditions for vesting	Stock option rights are vested after six months has elapsed from the date of the general meeting of shareholders on June 23, 2017	Stock option rights are vested after six months has elapsed from the date of the general meeting of shareholders on June 21, 2017	Stock option rights are vested after six months has elapsed from the date of the general meeting of shareholders on June 21, 2017
Required service period	None	None	None
Exercise period	From July 25, 2017 to July 24, 2057	From July 21, 2017 to July 20, 2057	From July 20, 2017 to July 19, 2057

* The number of shares is shown.

(ii) Movements in stock options (in shares) for the year ended March 31, 2018 were as follows:

(a) Number of stock options (in shares)

First Series of Stock Subscription Rights (Stock compensation-type stock options)

Company name	ALPS ELECTRIC CO., LTD.	ALPINE ELECTRONICS, INC.	ALPS LOGISTICS CO., LTD.*
Non-vested			
As of March 31, 2017	—	—	—
Granted	—	—	—
Forfeited	—	—	—
Vested	—	—	—
Outstanding as of March 31, 2018	—	—	—
Vested			
As of March 31, 2017	25,100	17,900	18,000
Vested	—	—	—
Exercised	—	5,700	—
Forfeited	—	—	—
Outstanding as of March 31, 2018	25,100	12,200	18,000

* Shares, exercise price and average stock price at exercise have been restated, as appropriate, to reflect the two-for-one stock split on April 1, 2016.

Second Series of Stock Subscription Rights (Stock compensation-type stock options)

Company name	ALPS ELECTRIC CO., LTD.	ALPINE ELECTRONICS, INC.	ALPS LOGISTICS CO., LTD.*
Non-vested			
As of March 31, 2017	—	—	—
Granted	—	—	—
Forfeited	—	—	—
Vested	—	—	—
Outstanding as of March 31, 2018	—	—	—
Vested			
As of March 31, 2017	11,300	12,300	15,200
Vested	—	—	—
Exercised	—	3,000	—
Forfeited	—	—	—
Outstanding as of March 31, 2018	11,300	9,300	15,200

* Shares, exercise price and average stock price at exercise have been restated, as appropriate, to reflect the two-for-one stock split on April 1, 2016.

Third Series of Stock Subscription Rights (Stock compensation-type stock options)

Company name	ALPS ELECTRIC CO., LTD.	ALPINE ELECTRONICS, INC.	ALPS LOGISTICS CO., LTD.
Non-vested			
As of March 31, 2017	—	—	—
Granted	—	—	—
Forfeited	—	—	—
Vested	—	—	—
Outstanding as of March 31, 2018	—	—	—
Vested			
As of March 31, 2017	23,900	35,600	33,100
Vested	—	—	—
Exercised	—	6,700	—
Forfeited	—	—	—
Outstanding as of March 31, 2018	23,900	28,900	33,100

Fourth Series of Stock Subscription Rights (Stock compensation-type stock options)

Company name	ALPS ELECTRIC CO., LTD.	ALPINE ELECTRONICS, INC.	ALPS LOGISTICS CO., LTD.*
Non-vested			
As of March 31, 2017	—	—	—
Granted	17,000	21,500	27,000
Forfeited	—	—	—
Vested	17,000	21,500	27,000
Outstanding as of March 31, 2018	—	—	—
Vested			
As of March 31, 2017	—	—	—
Vested	17,000	21,500	27,000
Exercised	—	—	—
Forfeited	—	—	—
Outstanding as of March 31, 2018	17,000	21,500	27,000

(b) Price information

First Series of Stock Subscription Rights (Stock compensation-type stock options)

Company name	ALPS ELECTRIC CO., LTD.	ALPINE ELECTRONICS, INC.	ALPS LOGISTICS CO., LTD.*
Exercise price	¥1 per share	¥1 per share	¥1 per share
Average stock price upon exercise	—	¥ 1,633	—
Fair value at grant date	¥ 1,415	¥ 1,417	¥ 498

* Shares, exercise price and average stock price at exercise have been restated, as appropriate, to reflect the two-for-one stock split on April 1, 2016.

Second Series of Stock Subscription Rights (Stock compensation-type stock options)

Company name	ALPS ELECTRIC CO., LTD.	ALPINE ELECTRONICS, INC.	ALPS LOGISTICS CO., LTD.*
Exercise price	¥1 per share	¥1 per share	¥1 per share
Average stock price upon exercise	—	¥ 1,633	—
Fair value at grant date	¥ 3,957	¥ 1,909	¥ 734

* Shares, exercise price and average stock price at exercise have been restated, as appropriate, to reflect the two-for-one stock split on April 1, 2016.

Third Series of Stock Subscription Rights (Stock compensation-type stock options)

Company name	ALPS ELECTRIC CO., LTD.	ALPINE ELECTRONICS, INC.	ALPS LOGISTICS CO., LTD.
Exercise price	¥1 per share	¥1 per share	¥1 per share
Average stock price upon exercise	—	¥ 1,633	—
Fair value at grant date	¥ 2,011	¥ 968	¥ 500

Fourth Series of Stock Subscription Rights (Stock compensation-type stock options)

Company name	ALPS ELECTRIC CO., LTD.	ALPINE ELECTRONICS, INC.	ALPS LOGISTICS CO., LTD.
Exercise price	¥1 per share	¥1 per share	¥1 per share
Average stock price upon exercise	—	—	—
Fair value at grant date	¥ 3,053	¥ 1,604	¥ 709

(3) Estimation of fair value of stock options

The fair value of the Fourth Series of Stock Subscription Rights of ALPS ELECTRIC CO., LTD., ALPINE ELECTRONICS, INC. and ALPS LOGISTICS CO., LTD. granted in the year ended March 31, 2018 is calculated as follows:

(i) Estimation method

The Black-Scholes Model

(ii) Assumptions used in calculations

Fourth Series of Stock Subscription Rights (Stock compensation-type stock options)

Company name	ALPS ELECTRIC CO., LTD.	ALPINE ELECTRONICS, INC.	ALPS LOGISTICS CO., LTD.
Volatility of stock price	45.890% ^{*1}	40.708% ^{*2}	21.781% ^{*3}
Estimated remaining outstanding period	2.89 years ^{*4}	4.07 years ^{*5}	2.96 years ^{*5}
Expected dividend	¥30 per share ^{*6}	¥30 per share ^{*6}	¥18 per share ^{*7}
Risk-free interest rate ^{*8}	(0.091)%	(0.072)%	(0.086)%

*1: The expected volatility is based on actual share prices during 2.89 years from August 22, 2014 to July 24, 2017.

*2: The expected volatility is based on actual share prices during 4.07 years from June 25, 2013 to July 20, 2017.

*3: The expected volatility is based on actual share prices during 2.96 years from July 18, 2014 to July 19, 2017.

*4: Estimated remaining outstanding period is determined by deducting the average tenure of incumbent directors (excluding audit and supervisory committee members) from the average tenure of the retired directors in the past 20 years.

*5: Estimated remaining outstanding period is determined by deducting the average tenure of incumbent directors (excluding audit and supervisory committee members, and non-executive directors) from the average tenure of the retired directors in the past 20 years.

*6: Based on actual year-end dividend for the year ended March 31, 2017.

*7: Based on the expected annual dividend amount for the year ended March 31, 2018.

*8: Japanese government bond yield applicable to the estimated remaining outstanding period of the stock options.

(4) Estimated number of stock options actually forfeited is reflected because the number of stock options that will be forfeited in the future cannot be readily estimated.**■ 22. ADDITIONAL INFORMATION****(Conclusion of a share exchange agreement on business integration)**

The Company and Alpine Electronics, Inc. ("Alpine," collectively, the "Companies") initially resolved at their respective board of directors meetings held on July 27, 2017 to conduct a business integration (the "Business Integration") that involving the reorganization into a holding company structure and entered into a share exchange agreement (the "Share Exchange Agreement") concerning a share exchange through which the Company will be the wholly owning parent company and Alpine will become a wholly owned subsidiary (the "Share Exchange").

The Share Exchange is expected to become effective on January 1, 2019 (the "Effective Date of the Share Exchange").

Shares of Alpine's common stock ("Alpine Common Shares") will be delisted from the First Section of the Tokyo Stock Exchange (the "TSE") on December 26, 2018 (the last day of trading will be December 25, 2018).

As announced in the Business Integration Press Release, based on a resolution of its board of directors dated July 27, 2017, the Company had executed a memorandum of understanding with ALPS HD CO., LTD. ("Company Split Preparation Company"), its wholly owned subsidiary, concerning the implementation of an absorption-type company split (the "Absorption-type Company Split"), under which the Company's rights and obligations concerning its businesses, other than those relating to group management and administration and the management of its assets, are to be succeeded by the Company Split Preparation Company. However, the Company subsequently decided at its board of directors meeting held on February 27, 2018 to cancel the Absorption-type Company Split, change the management structure following the Business Integration from a pure holding company structure to an operating holding company structure, and introduce an in-house company system (collectively, the "Changes"). The reorganization into an operating holding company structure and an in-house company system is scheduled for January 1, 2019 (the "Reorganization Date").

1. Purpose of the Share Exchange

The Company and Alpine amid market innovation brought about by the fourth industrial revolution, aim to keep contributing to people's lives in the areas of electronics and communication by focusing on the Electronic Components Business and the Automotive Infotainment Business, and to become a sustainable "value creating corporate group" targeting net sales of one trillion yen.

Specifically, the Company utilizes software development capabilities and system design capabilities of Alpine in deepening and fusing input devices, sensing devices and communication device technologies, which are core technologies and products of the Company, while Alpine also employing automotive HMI in strengthening the system integrator business based on sensing technology and communication device technology.

In addition to the following four areas referred to as CASE (Connected, Autonomous, Shared & Services, Electric), the integrated HMI cockpit system and other automotive businesses, the Companies also collaborate in new business areas such as EHII (Energy, Healthcare, Industry, IoT).

Furthermore, the Company plans to strengthen, promote alliances with other companies, and steadily realize the beneficial integration effect.

In order to accelerate this management integration, the Companies will mutually utilize their respective management resources such as human resources and technology, and by transitioning to a holding company structure, the Companies will be able to achieve full-scale collaboration, such as strengthening proposal and sales functions as an alps group for customers, training employees through cross-cutting human resources exchanges such as engineers and sales, utilizing fund procurement capabilities and networks, and utilizing manufacturing capabilities.

As a result, coupled with suppliers' cooperation with through joint procurement of materials, strengthening procurement capabilities and strengthening global operations, promoting mutual use of manufacturing bases, improving efficiency of indirect departments, and other activities of the entire Group, the synergistic effects from the abovementioned items can be maximized.

2. Method of the Share Exchange

The Companies will conduct the Share Exchange, under which the Company will become the wholly owning parent company and Alpine will become a wholly owned subsidiary.

The Share Exchange will be consummated without approval at the general meeting of shareholders of the Company in accordance with the simplified share exchange procedures under Article 796, paragraph (2) of the Companies Act. Alpine will obtain approval for the Share Exchange at its extraordinary general meeting of shareholders, which is to be held in mid-December, 2018. The expected effective date of the Share Exchange is January 1, 2019.

3. Schedule of the Share Exchange

Please refer Schedule of the Business Integration to the following

Meeting of Board of Directors relating to approval of the execution of the Share Exchange Agreement, the establishment of the Company Split Preparation Company and the execution of the Memorandum of Understanding on the Absorption-type Company Split (the Company)	July 27, 2017
Meeting of the Board of Director relating to approval of the execution of the Share Exchange Agreement (Alpine) Execution of the Share Exchange Agreement (the Companies)	
Establishment of the Company Split Preparation Company (Company Split Preparation Company)	
Decision by the Directors relating to approval of the execution of the Memorandum of Understanding on the Absorption-type Company Split (Company Split Preparation Company)	
Execution of the Memorandum of Understanding on the Absorption-type Company Split (the Company and Company Split Preparation Company)	
Meeting of the Board of Directors relating to approval of the execution of the Share Exchange Agreement Amendment MOU and cancellation of the Absorption-type Company Split (the Company)	
Meeting of the Board of Directors relating to approval of the execution of the Share Exchange Agreement Amendment MOU (Alpine)	
Decision by the Directors relating to the cancellation of the Absorption-type Company Split (Company Split Preparation Company)	
Execution of the Share Exchange Agreement Amendment MOU (the Companies)	
The 85th ordinary general meeting of shareholders, at which the Amendments to the Articles of Incorporation are to be approved (the Company)	June 22, 2018
Extraordinary general meeting of shareholders relating to approval of the Share Exchange Agreement (Alpine)	Mid-December 2018 (scheduled)
Last trading date (Alpine)	December 25, 2018 (scheduled)
Delisting date (Alpine)	December 26, 2018 (scheduled)
Effective date of the Share Exchange (the Companies)	
Change of the company name (the Company)	
Reorganization Date (the Companies)	January 1, 2019 (scheduled)

4. Details of the Share Exchange Ratio

	The Company (Wholly Owning Parent Company)	Alpine (Wholly Owned Subsidiary)
Details of the Share Exchange Ratio	1	0.68
Number of shares to be delivered in the Share Exchange	The Company's Common Shares: 27,690,824 shares (planned) (The Company intends to deliver 1,900,000 shares of its treasury stock for the allotment of shares through the Share Exchange.)	

5. Treatment of Subscription Rights and Convertible Bond-type Bonds with Subscription Rights under the Share Exchange

With regard to the following subscription rights issued by Alpine, for those subscription rights that the holders thereof do not exercise by the earlier of (a) the last day of the exercise period set forth in the terms and conditions of such subscription rights or (b) the day before the Effective Date of the Share Exchange, the Company will, bearing in mind the terms of each subscription right and the Share Exchange Ratio, deliver the Company's subscription rights to each such Alpine subscription right holders who are registered or recorded in the subscription rights registry of Alpine as of the Reference Time, in exchange for each Alpine subscription right they hold.

If Alpine issues additional subscription rights by the day of the general meeting of shareholders relating to approval for the Share Exchange, an amendment of the Share Exchange Agreement may be executed so that the Share Exchange

Agreement provides for the delivery of the Company's subscription rights in exchange for those additional subscription rights in the same manner as described above. It will be promptly announced if such an amendment is executed.

- First Series of Stock Subscription Rights (resolution at the meeting of the board of directors of Alpine held on June 19, 2014)
- Second Series of Stock Subscription Rights (resolution at the meeting of the board of directors of Alpine held on June 18, 2015)
- Third Series of Stock Subscription Rights (resolution at the meeting of the board of directors of Alpine held on June 22, 2016)
- Fourth Series of Stock Subscription Rights (resolution at the meeting of the board of directors of Alpine held on June 22, 2017)

Alpine has not issued any convertible bond-type bonds with subscription rights.

6. Basis for the Share Exchange Ratio

In order to ensure fairness and adequacy in the calculation of the Share Exchange Ratio used in the Share Exchange, the Company and Alpine requested independent third-party appraisers, Nomura Securities Co., Ltd. ("Nomura Securities") and SMBC Nikko Securities Inc. ("SMBC Nikko") as their respective third-party appraisers to calculate the share exchange ratio individually.

Based on the calculation report on the share exchange ratio received on July 26, 2017 from Nomura Securities, and advice from Mori Hamada & Matsumoto (the legal advisor) etc., and as a result of consultation and discussions with the Company, it was determined that the above Share Exchange Ratio was reasonable and did not detract from the shareholders' interests; therefore it was judged that it is reasonable to carry out the Share Exchange pursuant to the Share Exchange Ratio.

Alpine's third-party appraiser, SMBC Nikko, issued the "Calculation and Opinion (Fairness Opinion) on Share Exchange Ratio" on July 26, 2017, and Alpine received advice from TMI Associates (the legal advisor), and in addition, Alpine obtained a report, "Toshinsho", from a third-party committee on July 26, 2017, and in consideration of the Fairness Opinion, the matter was carefully discussed and considered.

As a result, the Share Exchange Ratio was determined to be within the evaluation range of the discounted cash flow method, according to the statement on the Share Exchange Ratio received from SMBC Nikko, and it exceeds the upper limit of the valuation range of the market share price method and similar company comparison, it is judged to be reasonable and does not impair the rights of the shareholders, and therefore it is appropriate to conduct the Share Exchange pursuant to the Share Exchange Ratio.

In addition to the above, the Company and Alpine evaluate factors such as the financial situation, asset conditions, future prospects, etc. comprehensively taking into consideration the results of due diligence each of the two companies conducted on the counterparty. As a result of deliberate negotiations and consultations on the share exchange ratio, it was ultimately decided that the Share Exchange Ratio is appropriate and will contribute to the respective shareholders' interests of each company, and the Share Exchange Agreement, including the Share Exchange Ratio, was approved.

7. Status after the Absorption-type Company Split

(1) Company name	ALPS ALPINE CO., LTD.
(2) Head office	1-7, Yukigaya-otsukamachi, Ota-ku, Tokyo, Japan
(3) Name and title of Representative	Toshihiro Kuriyama, Representative Director and President
(4) Main business	Automotive Infotainment Business Electronic Components Business Logistics Business Group Management and Administration Business and Asset Management Business
(5) Paid-in capital	¥38,730 million

(Note) On January 1, 2019 (scheduled), on the condition that the Share Exchange will have taken effect, to the Company plans to partially amend its Articles of Incorporation to reflect changes, including a change in company name to "ALPS ALPINE CO., LTD." and changes in business purposes suitable for a holding company.

8. Overview of Accounting Treatment

Based on "Accounting Standard for Business Combinations" (ASBJ Statement No.21, September 13, 2013) and "Guidance on Accounting Standards for Business Combinations and

Accounting Standard for Business Divestitures" (ASBJ Guidance No. 10, September 13, 2013), the transactions will be accounted for as a transaction under common control.

■ 23. SEGMENT INFORMATION

Business segments

The operating segments of the Company are components for which discrete financial information is available and whose operating results are regularly reviewed by the Board of Directors to make decisions about resource allocation and assess performance.

The Company organizes group companies based on products and services and implements business activities based on its comprehensive strategies.

The reportable segments are classified by products and services taking into account the commonality of the types of products and markets. The three reportable segments of the Companies are "Electronic components," "Automotive Infotainment," and "Logistics".

The "Electronic components" business involves the development, manufacturing and marketing of a variety of electronic components. The "Automotive Infotainment" business involves the development, manufacturing, and marketing of audio, information and communication equipment. The "Logistics" business involves the provision of transportation, storage and forwarding services.

The accounting policies of the segments are substantially the same as those described in Note 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES.

Segment income of the reportable segments is based on operating income. Inter-segment sales and transfers are determined on the basis of actual transactions.

Reportable segment information of the Company for the years ended March 31, 2018 and 2017 is summarized as follows:

Year ended March 31, 2018	Millions of yen							
	Reportable segments			Total	Other (Note 1)	Total	Adjustments (Note 2)	Consolidated (Note 3)
	Electronic components	Automotive Infotainment	Logistics					
Net sales								
External customers	¥514,031	¥267,638	¥ 64,666	¥846,336	¥11,981	¥858,317	¥ -	¥858,317
Inter-segment sales and transfers	13,860	7,643	40,306	61,810	14,174	75,985	(75,985)	-
Total	527,892	275,281	104,972	908,146	26,155	934,302	(75,985)	858,317
Segment income	52,929	13,735	4,932	71,597	1,701	73,299	(1,391)	71,907
Segment assets	413,898	218,902	76,344	709,146	38,688	747,834	(76,035)	671,799
Segment liabilities	180,260	63,217	27,014	270,492	32,024	302,516	(46,590)	255,926
Other items								
Depreciation	26,307	7,034	2,183	35,526	453	35,979	25	36,004
Increase in tangible and intangible fixed assets	61,235	8,611	5,584	75,431	662	76,093	60	76,154

Year ended March 31, 2017	Millions of yen							
	Reportable segments			Total	Other (Note 1)	Total	Adjustments (Note 2)	Consolidated (Note 3)
	Electronic components	Automotive Infotainment	Logistics					
Net sales								
External customers	¥437,676	¥242,306	¥61,150	¥741,134	¥12,128	¥753,262	¥ -	¥753,262
Inter-segment sales and transfers	10,019	5,445	38,098	53,562	13,254	66,816	(66,816)	-
Total	447,696	247,751	99,249	794,697	25,382	820,079	(66,816)	753,262
Segment income	32,803	5,623	5,083	43,510	884	44,395	(21)	44,373
Segment assets	362,322	201,274	73,147	636,744	33,927	670,672	(67,711)	602,961
Segment liabilities	169,706	56,255	26,249	252,211	27,933	280,144	(38,298)	241,846
Other items								
Depreciation	24,139	6,417	2,127	32,684	381	33,066	10	33,076
Increase in tangible and intangible fixed assets	37,063	7,978	2,071	47,114	493	47,607	50	47,657

Year ended March 31, 2018	Thousands of U.S. dollars							
	Reportable segments			Total	Other (Note 1)	Total	Adjustments (Note 2)	Consolidated (Note 3)
	Electronic components (Note 4)	Automotive Infotainment (Note 5)	Logistics					
Net sales								
External customers	\$4,838,394	\$2,519,183	\$608,678	\$7,966,265	\$112,773	\$8,079,038	\$ -	\$8,079,038
Inter-segment sales and transfers	130,459	71,941	379,386	581,796	133,415	715,220	(715,220)	-
Total	4,968,863	2,591,124	988,065	8,548,061	246,188	8,794,258	(715,220)	8,079,038
Segment income	498,202	129,283	46,423	673,918	16,011	689,938	(13,093)	676,835
Segment assets	3,895,877	2,060,448	718,599	6,674,944	364,157	7,039,100	(715,691)	6,323,409
Segment liabilities	1,696,724	595,040	254,273	2,546,047	301,431	2,847,477	(438,535)	2,408,942
Other items								
Depreciation	247,619	66,209	20,548	334,394	4,264	338,658	235	338,893
Increase in tangible and intangible fixed assets	576,384	81,052	52,560	710,006	6,231	716,237	565	716,811

Notes:

1. "Other" includes business segments not included in the reportable segments, and includes the development of information systems, office services, financial and leasing businesses.

2. "Adjustments" of segment income, segments assets, and liabilities include the reconciliations relating to reclassifications due to consolidation and elimination of inter-segment profit and loss.

3. Segment income is reconciled with operating income in the consolidated financial statements.

Related information**1. Geographical information****(1) Net sales**

Millions of yen					
Year ended March 31, 2018					
Japan	China	America	Germany	Other	Total
¥156,461	¥155,371	¥135,482	¥83,732	¥327,269	¥858,317

Millions of yen					
Year ended March 31, 2017					
Japan	America	China	Germany	Other	Total
¥152,336	¥134,989	¥115,834	¥73,336	¥276,766	¥753,262

Thousands of U.S. dollars					
Year ended March 31, 2018					
Japan	China	America	Germany	Other	Total
\$1,472,713	\$1,462,453	\$1,275,245	\$788,140	\$3,080,469	\$8,079,038

Note: Net sales information above is based on customer location.

(2) Property, plant and equipment

Millions of yen				
As of March 31, 2018				
Japan	China	Other	Total	
¥109,142	¥44,046	¥32,702	¥185,891	

Millions of yen				
As of March 31, 2017				
Japan	China	Other	Total	
¥94,894	¥26,538	¥28,352	¥149,785	

Thousands of U.S. dollars				
As of March 31, 2018				
Japan	China	Other	Total	
\$1,027,316	\$414,590	\$307,813	\$1,749,727	

2. Information on major customers

This information is not required to be disclosed because net sales to any customer were less than 10% of the net sales on the consolidated statements of income and comprehensive income for the years ended March 31, 2018 and 2017.

Impairment loss on property, plant and equipment by reportable segment

Impairment loss on property, plant and equipment by reportable segment for the years ended March 31, 2018 and 2017 was summarized as follows:

Millions of yen					
Year ended March 31, 2018					
Electronic components	Automotive Infotainment	Logistics	Other	Eliminations	Total
¥0	¥275	¥-	¥-	¥-	¥275

Notes: "Other" includes financial, leasing and servicing businesses.

Millions of yen					
Year ended March 31, 2017					
Electronic components	Automotive Infotainment	Logistics	Other	Eliminations	Total
¥163	¥-	¥-	¥0	¥-	¥164

Notes: "Other" includes financial, leasing and servicing businesses.

Thousands of U.S. dollars				
Year ended March 31, 2018				
Electronic components	Automotive Infotainment	Logistics	Other	Eliminations
\$0	\$2,588	\$-	\$-	\$2,588

Amortization and balance of goodwill by reportable segment

As the amounts are immaterial, the related disclosure is omitted.

Gain on negative goodwill by reportable segment

There was no gain on negative goodwill for the years ended March 31, 2018 and 2017.

■ 24. PER SHARE INFORMATION

Per share information as of and for the years ended March 31, 2018 and 2017 is as follows:

	yen	U.S. dollars	
	2018	2017	2018
Net assets per share	¥1,537.37	¥1,299.11	\$14.47
Profit attributable to owners of parent per share			
Basic	241.91	178.25	2.28
Diluted	241.82	178.20	2.28

Basis for calculation of net assets per share is as follows:

	Millions of yen, except share data	Thousands of U.S. dollars, except share data	
	2018	2017	2018
Total net assets	¥415,872	¥361,114	\$3,914,458
Amounts deducted from total net assets:			
Subscription rights	333	248	3,134
Non-controlling interests	114,362	106,365	1,076,450
Net assets attributable to common stock	301,176	254,501	2,834,864
Number of common stock used in calculation of net assets per share (Thousand shares)	195,904	195,905	195,904

Basis for calculation of profit attributable to owners of parent per share is as follows:

	Millions of yen, except share data	Thousands of U.S. dollars, except share data	
	2018	2017	2018
Basis for calculation of profit attributable to owners of parent per share			
Profit attributable to owners of parent	¥47,390	¥ 34,920	\$446,066
Amounts not attributable to common stock	-	-	-
Profit attributable to owners of parent regarding common stock	47,390	34,920	446,066
Average number of shares outstanding during the year (Thousand shares)	195,904	195,904	195,904
Adjustments on profit attributable to owners of parent:			
Bond interest	-	-	-
Increase in number of shares of common stock (Thousand shares) :	73	55	73
Convertible bond-type bonds with share subscription rights	-	-	-
Stock subscription rights	73	55	73
Description of dilutive securities which were not included in the calculation of diluted net income per share of common stock as they have no dilutive effects	-	-	-



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Independent Auditor's Report

The Board of Directors
Alps Electric Co., Ltd.

We have audited the accompanying consolidated financial statements of Alps Electric Co., Ltd. and its consolidated subsidiaries, which comprise the consolidated balance sheet as at March 31, 2018, and the consolidated statements of income and comprehensive income, changes in net assets, and cash flows for the year then ended and a summary of significant accounting policies and other explanatory information, all expressed in Japanese yen.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for designing and operating such internal control as management determines is necessary to enable the preparation and fair presentation of the consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in Japan. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. The purpose of an audit of the consolidated financial statements is not to express an opinion on the effectiveness of the entity's internal control, but in making these risk assessments the auditor considers internal controls relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Alps Electric Co., Ltd. and its consolidated subsidiaries as at March 31, 2018, and their consolidated financial performance and cash flows for the year then ended in conformity with accounting principles generally accepted in Japan.

Convenience Translation

We have reviewed the translation of these consolidated financial statements into U.S. dollars, presented for the convenience of readers, and, in our opinion, the accompanying consolidated financial statements have been properly translated on the basis described in Note 1.

Ernst & Young ShinNihon LLC

June 15, 2018
Tokyo, Japan

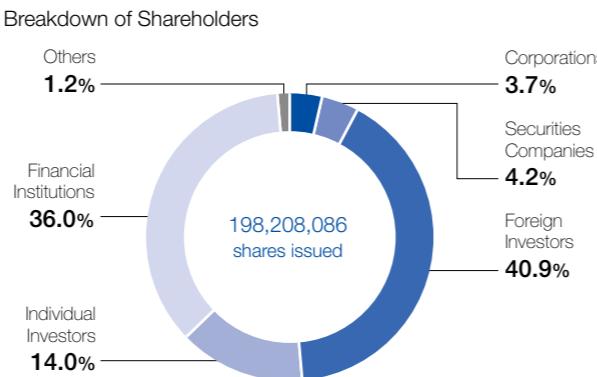
Corporate Data

Company name	Alps Electric Co., Ltd.
Headquarters	1-7, Yukigaya-otsukamachi, Ota-ku, Tokyo 145-8501, Japan TEL: +81-3-3726-1211
Website	http://www.alps.com/e/
President	Toshihiro Kuriyama
Established	November 1, 1948
Capital stock	¥38.730 billion
Employees	42,289 (consolidated) 5,590 (non-consolidated)
Facilities	R&D / Design ... Japan: 4 Overseas: 6 (3 countries) Production ... Japan: 7 Overseas: 14 (8 countries) Sales 52 (16 countries)



Stock Information

No. of authorized shares	500,000,000
No. of issued shares	198,208,086 (including 2,304,021 treasury stock)
No. of shareholders	44,269
Stock listing	Tokyo Stock Exchange First Section (Code: 6770)
Share registrar	Mitsubishi UFJ Trust and Banking Corporation

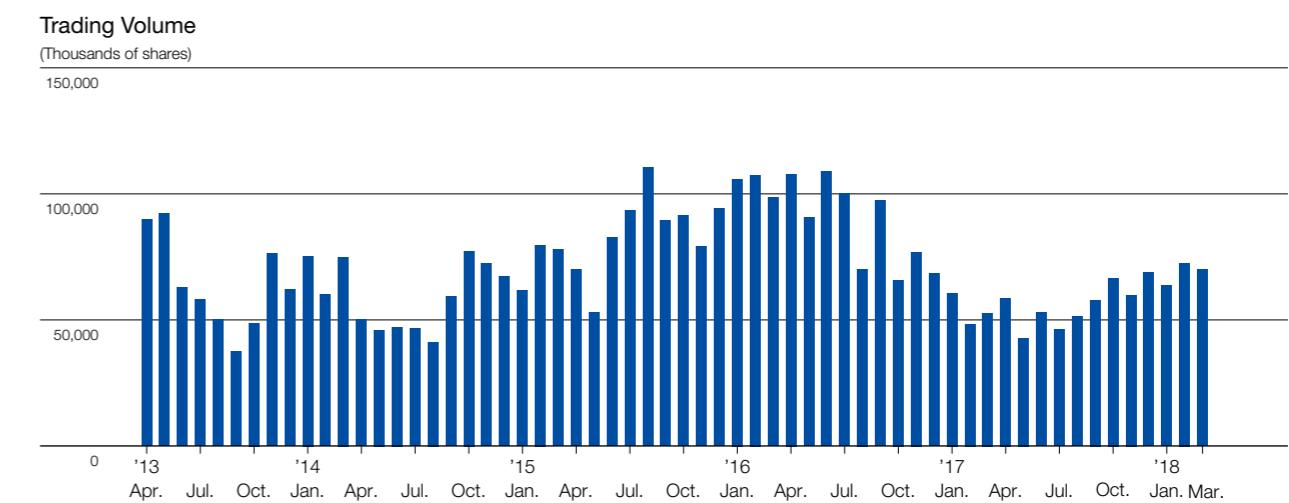


Notes: 1. "Others" refers to shares held by Alps Electric Co., Ltd., and unclaimed shares stored by the Japan Securities Depository Center, Inc.
2. "Individual investors" refers to shares held by individuals and Alps Electric's employee shareholding association.

Top 10 Shareholders

Name	No. of shares (thousand)	Shareholding ratio (%)
The Master Trust Bank of Japan, Ltd. (Trust account)	23,713	12.10
Japan Trustee Services Bank, Ltd. (Trust account)	14,401	7.35
Mitsui Life Insurance Company Limited	3,591	1.83
STATE STREET BANK WEST CLIENT-TRETYA 505234	3,544	1.80
THE BANK OF NEW YORK MELLON SA/NV 10	3,434	1.75
Japan Trustee Services Bank, Ltd. (Trust account 5)	3,292	1.68
Trust & Custody Services Bank, Ltd. (Securities investment trust account)	3,156	1.61
THE BANK OF NEW YORK 132561	2,845	1.45
Nippon Life Insurance Company	2,750	1.40
Mitsui Sumitomo Insurance Company, Limited	2,517	1.28

Note: The shareholding ratio is calculated after deducting treasury stock (2,304,021).





ALPS ELECTRIC CO., LTD.

Inquiries about this report:

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