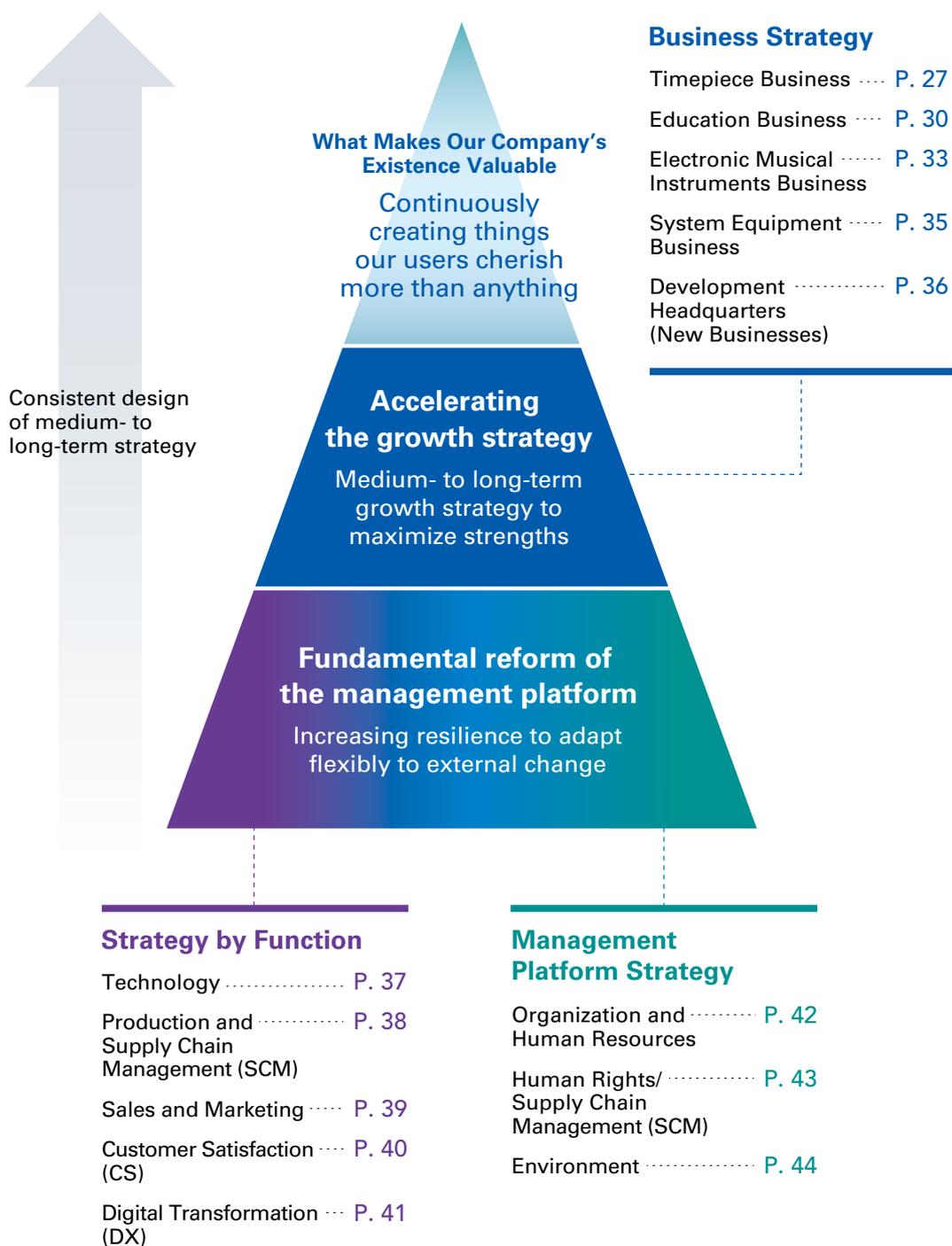


# Specific Strategies



## Business Strategy

## Timepiece Business

## Looking ahead to 2030

We will establish a unique market position for the G-SHOCK brand by enhancing its high-added-value proprietary technology, expanding its creative and richly expressive design development capabilities, rolling out a global marketing strategy that will harness these strengths for business growth, and thereby expanding the loyal user base.

**MASUDA Yuichi** Senior Executive Managing Officer, Senior General Manager, Timepiece Business Unit



- G-SHOCK brand assets (Global brand strength and loyal fanbase)
- Creative and richly expressive design development capabilities
- High-added-value proprietary technology to support design capabilities
- Unique global promotions and marketing strategy

- A society that respects individual lifestyles
- Robust G-SHOCK market in North America, Europe, and other regions
- Expansion potential in emerging countries
- Improving e-commerce sales ratio in each region
- Growth potential in the youth and female markets and the sports and health market



- Insufficient level of active access to users
- Product dimensions required to ensure robustness

- Intensifying competition in the smart watch market
- Stagnation of analog quartz watch market
- Possible competition with lifestyle brands in other domains

## Target for G-SHOCK brand net sales ratio

FYE 3/2022 (Result)

59%



FYE 3/2023 (Target)

60%

## Target for sales ratio of our own e-commerce

FYE 3/2022 (Result)

4%



FYE 3/2023 (Target)

6%

## Using the development potential of the G-SHOCK brand to expand the loyal user base and open up new business domains

## Background to strategy

Within the nearly 50-year history of the Timepiece Business, the G-SHOCK brand has had particular success in building a loyal fanbase worldwide and significantly enhancing its global brand assets. What made this possible was our creative and richly expressive design development capabilities, backed by high-added-value technology, and our global promotions and marketing strategy, which achieved business growth by winning a loyal fanbase worldwide through effective communication. It was thanks to this creative activity that our Timepiece Business was able to grow.

In the fiscal year ended March 31, 2022, however, we, like other companies, were affected by the continuing

disruption of the supply chain caused by the shortage of component parts, particularly semiconductors, and the sustained steep rise in raw material and energy prices. In addition, tourist demand was reduced by the impact of the COVID-19 pandemic, and the worsening situation in Russia and Ukraine led to actual market collapse in some regions.

Amid this challenging market environment, the smart device sector continued its rise, and the digitalization of the market accelerated further. At the same time, the increasing awareness of ESG issues and the Sustainable Development Goals (SDGs) has caused a marked change in how society expects business enterprises to act. With more and more groups of consumers, such as those of

Generation Z, identifying with new values, the market and its environment are highly unpredictable. Like other companies, we need to find a way of adapting to these changing times.

### Direction of medium- to long-term strategy

Given this market environment, the Timepiece Business needs to present its products as highly prized possessions for their users. Leveraging the highly expressive design development capabilities we have built up over many years, we will maintain a market position clearly differentiated from the smart device sector. We will also develop new technologies that raise the brand's social value by further evolving our high-added-value technology and incorporating SDG aspects into the business strategy. In conjunction with these strategies, we will hone our marketing skills to adapt to the DX of the market and further expand Casio's loyal fanbase worldwide.

### G-SHOCK expansion strategy

In the Timepiece Business, we have announced three growth strategies: the brand extension strategy, the masterpiece strategy, and the Bluetooth strategy.

The first strategy, brand extension, seeks to revitalize the G-SHOCK brand by targeting the growth potential of the youth and female markets to further expand the user base. We will also strengthen premium lines to bring the

G-SHOCK brand to a new evolutionary stage and increase the share of metal models in the G-SHOCK product range. In addition, we plan to expand the scale of sports lifestyle G-SHOCK. We will enhance the range of product models featuring a lifelog function. As a new challenge, we will also work on the development of eco-friendly technology with high added value that will raise the brand's social value.

Under the second, masterpiece strategy, we will create masterpiece products to achieve stable and continuous sales expansion and brand strengthening. Specifically, we will evolve materials and functions to add to the range of the 5,600 product line, which inherits the angular form of the first-generation model, and the 2,100, with its globally popular octagonal form.

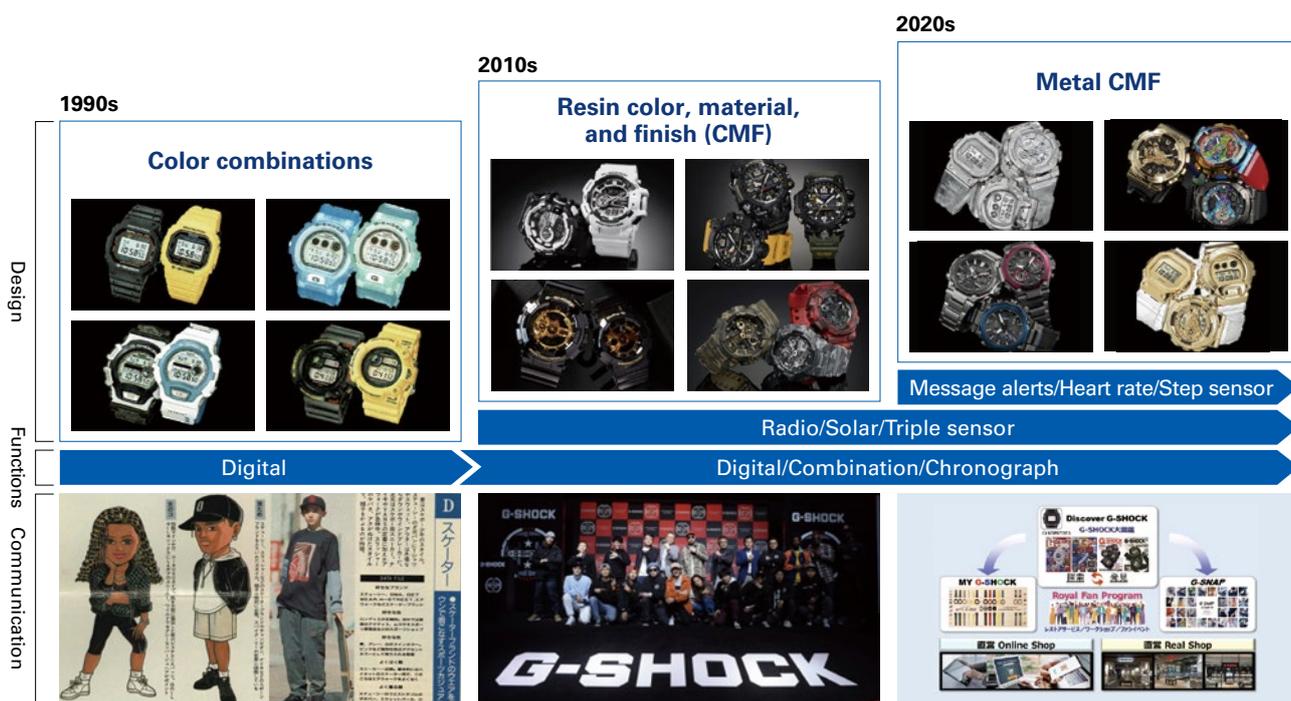
The third, Bluetooth strategy, calls for expansion of Bluetooth Low Energy (BLE) smartphone-connected models, for which strong demand is indicated in surveys of major national markets. We will also emphasize globally the appeal of worldwide time zone correction and linking with lifelog data such as step count and heart rate.

### Global marketing strategy

In the rollout of our global marketing strategy, our aim is to strengthen one-to-one marketing.

In concrete terms, we will further strengthen the Online Merges with Offline (OMO) strategy of our own e-commerce and directly managed stores to realize the

## Development of lifestyle-focused products that factor in social value



### Products involved in the G-SHOCK expansion strategy



GMA-S2100



MR-G  
MRG-B5000



G-SQUAD  
GRD-H1000



G-5600UE



GA-B2100

unique value of the latter. Meanwhile, visualizing a loyal fanbase in each region will enable efficient and effective marketing and further enhance our connection with them. As part of this initiative, we will hold quarterly global online exhibitions of new timepiece products. Through these events, we will simultaneously reach out to retailers and media representatives worldwide with new product information, interviews with product development staff, and other features, making this one of the drivers of our global marketing strategy.

Additionally, through collaboration between CASIO ID and physical retail stores, we will not only improve the quality of customer service and increase customer satisfaction but also offer CASIO ID members special experiences through unique programs. These initiatives will enable us to create forums and frameworks for proactive brand communication and delivery of high-quality experiences to customers.

In our marketing for different regions, we will implement a medium- to long-term strategy tailored to the region's growth potential and roll out a finely tuned marketing mix optimized to match the specific market conditions so as to maximize business while maintaining brand consistency.

In China for instance, we will work to accelerate the momentum of the COVID-19 recovery by redeveloping the

infrastructure. In Europe and the United States, meanwhile, we will target steady growth by reinforcing data-driven marketing and expanding directly managed businesses. Moving on to ASEAN, we will strengthen and streamline local systems with Singapore as the regional headquarters site.

In 2023, G-SHOCK marks its 40th anniversary. On the marketing front, we plan to work together with leading retailers, collaborators, and the media to hold events with a product focus. Elsewhere, we will set up a special website with videos presenting past models, the history of their evolution, their development stories, the impact of durability, and other information. By rolling the website out globally, we will target brand promotion and expansion of the loyal fanbase.

### OMO strategy based on our own e-commerce + directly managed stores



Our own e-commerce



Directly managed stores



# Education Business

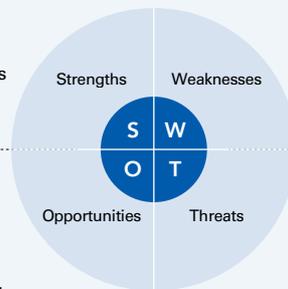
## Looking ahead to 2030

By keeping a constant eye on the future and continuing to provide products and services adapted to the diverse educational environments of the “new normal,” we will achieve continuous expansion of the hardware business and establish a unique position in the software business, thereby contributing to education worldwide.

**OTA Shinji** Executive Managing Officer, Senior General Manager, Educational Business Unit



- Use of GAKUHAN activities to build strong connections with education ministries and teachers and to develop educational methods
- Majority share of scientific calculator market in 100 countries worldwide and top share market of electronic dictionary market in Japan
- World-class algebraic and arithmetic calculation engines
- Stable profit cycle based on fresh demand with the start of each academic year

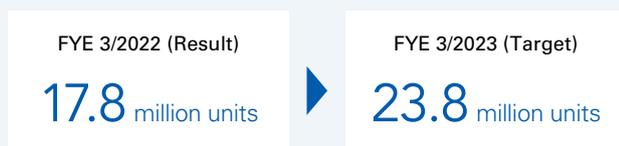


- Product and service development led by Head Office
- Uneven development of educator network in different countries

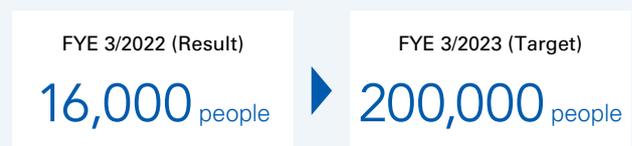
- Accelerated introduction of ICT in the educational environment
- Digitalization of tests and learning materials
- Social environment that values problem-solving and thinking abilities
- Diversifying needs for hardware- and software-based educational tools
- Different approaches in different countries and regions to school reopening and operation after COVID-19

- Maturing of the Japanese market for electronic dictionaries
- Restriction on visiting educational institutions due to COVID-19
- Circulation of counterfeit products

### Scientific calculator sales and targets



### Comprehensive learning platform ClassPad.net Targets for number of users



**We will continue contributing to education around the world by providing hardware and software compatible with all educational environments.**

### Background to strategy

The foundation of our Education Business is the strong connections that we have built up with education ministries and schoolteachers in many countries through our GAKUHAN activities. We have also established a stable profit cycle based on the fresh demand at the start of each academic year, a strength which has supported our business development. Moreover, our scientific calculators have a majority market share in 100 countries worldwide, while our electronic dictionaries have Japan’s top market share. Above all, the market strength of the Education Business lies in the advanced range of world-class algebraic and arithmetic calculation engines that we have built up.

However, the market has recently seen intensified competition as Japan’s mature market for electronic dictionaries faces the accelerating digitalization of the educational environment. Meanwhile, the demand for learning support content is expanding, and a worldwide shift in educational systems is emerging. This is the transition from group learning to “adaptive learning,” which is adjusted to the individual student’s learning pace and strong and weak points. Our Education Business needs to accurately interpret these changes and respond with an effective strategy, maintaining a constant focus on the way forward.

### Direction of medium- to long-term strategy

We will continue contributing to education worldwide by progressing with hardware, software, and combined strategies to support all educational environments. By synchronizing the scientific calculators and electronic dictionaries, which are our strength, with comprehensive apps for all subjects, we will pursue user-friendliness from the perspective of the educational frontline. We will also work to further upgrade the science and mathematics engines fitted in automatic scoring systems and electronic textbooks, as well as the arts-based content planned for the future, to enable their utilization in learning and examination environments.

In the process of implementing these strategies, we emphasize cyclical data use as an important feature. This means that data used by the customer is collected and stored and fed back to the customer to create a cyclical learning method. In addition, we will develop and supply equipment whose main application will be in adaptive learning, a global trend in learning and educational methodology that is set to become established in the near future. Through this, we will contribute to school education worldwide.

### Hardware business strategy

In the scientific calculator business, we plan to successively ship a new model (New ClassWiz) to global markets.

As sales recover with the resumption of face-to-face teaching, we will accelerate the rollout of GAKUHAN activities particularly in emerging Asian countries, creating new demand in acquisition of examination approval and other areas. Additionally, to enhance our network of teachers providing recommendations, we will digitize our connections with teachers to continuously secure demand and gauge the ripple effect on the surroundings.

Elsewhere, to achieve expansion in the key ASEAN market, we are taking forward projects based on EDU-Port Japan\* in collaboration with local education stakeholders to create demand, primarily in Indonesia and Thailand. In the electronic dictionary business, we will promote the introduction of customized models based on needs and enhance additional download content. In this way, we will expand the market by introducing a strategic model that adapts to the circumstances of individual schools.

\* A project supporting the overseas rollout of Japanese-style education implemented by Japan's Ministry of Education, Culture, Sports, Science and Technology

### Focus on the new educational environments of the pandemic and post-pandemic era

	Japan	Overseas
	<p><b>Expand based on sum total of hardware + (content) + software</b></p> <p>Up to FYE 3/2022    Future concept</p>	<p><b>Expand through hardware growth potential of new channels + software</b></p> <p>Up to FYE 3/2022    Future concept</p>
<b>Hardware</b>	<p><b>Electronic dictionaries</b></p> <ul style="list-style-type: none"> <li>Promote introduction of needs-based customized models</li> <li>Enhance additional download content</li> </ul>	<p><b>Scientific calculators</b></p> <ul style="list-style-type: none"> <li>Sales recovery with resumption of face-to-face teaching</li> <li>Create new demand through strengthening of GAKUHAN activities primarily in emerging Asian countries (examination approval/accelerated rollout)</li> </ul>
<b>Software</b>	<p><b>Learning platforms</b></p> <ul style="list-style-type: none"> <li>Launch provision of <b>comprehensive learning platform ClassPad.net</b> that supports six subjects in Japan's GIGA School Project</li> <li>Launch content provision for elementary and junior high schools and universities</li> </ul>	<p><b>Learning platforms</b></p> <ul style="list-style-type: none"> <li>Start from support for German version of GIGA School Project (mathematics: calculation tools + e-learning) Worldwide rollout planned</li> <li>Future worldwide rollout planned for <b>comprehensive learning platform ClassPad.net</b></li> </ul>
<b>Software</b>	<p><b>Automatic scoring business</b></p> <ul style="list-style-type: none"> <li>Supply automatic scoring engines to examination providers</li> <li>Real-life studies completed at two providers</li> </ul>	<p><b>Promoting business in CBT*/digital textbook support</b></p> <ul style="list-style-type: none"> <li>United States: Create questions for proficiency tests/internal tests, provide automatic scoring engines</li> <li>Future rollout planned to other countries</li> </ul> <p style="text-align: right;">* Computer-based testing</p>

## Software business strategy

We provide schools with ClassPad.net, a comprehensive online learning platform that supports the GIGA School Project operated by Japan's Ministry of Education, Culture, Sports, Science and Technology. A model of the platform that supports six high-school subjects was first introduced by more than 600 schools in a trial version with limited functionality. We are now progressing with the switchover to a commercial version. On April 28, 2022, we concluded an agreement with the Kochi Prefectural Board of Education on the provision of digital learning support at prefectural schools. The product is in use at some prefectural senior high and junior high schools (seven prefectural senior high schools and four affiliated junior high schools). Associated verification of the practical use of the information and communications technology (ICT) has been carried out. Looking ahead, to coincide with moves to resume the introduction of tablets at senior high schools, which had

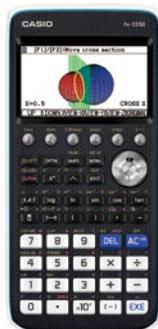
been delayed by the impact of the semiconductor shortage, we will promote switchover to the commercial version at schools that had introduced the trial version. Meanwhile, in July 2021 we started provision of ClassPad.net for Lenovo, and in April 2022 we launched content for elementary and junior high schools and universities. We are thus progressing with opening of new channels in the electronic education market based on our strengths.

Overseas development has begun with the rollout of mathematical calculation tools and e-learning to support the German version of the GIGA School Project. We plan worldwide rollout in parallel with ClassPad.net. We will also drive business projects supporting CBT and digital textbooks. Starting in the United States, we will launch question creation for proficiency tests and internal tests and provision of automatic scoring engines, with plans to roll out to other countries in the future.

## Progress with a sustainable and stable hardware business



Scientific calculator  
fx-991CW



Scientific calculator  
fx-CG50



Electronic dictionary XD-SX4910WE

## Using our strengths to open up the electronic education market



Official conclusion of the digital learning support agreement with Kochi prefectural schools

## Business Strategy

## Electronic Musical Instruments Business

## Looking ahead to 2030

Using the digital control technology for sound built up over many years, we provide pleasing sounds and acoustic solutions. In this way, we propose a new lifestyle surrounded by pleasant sounds to enrich people's spirits and lives and create new value from the world of sound.

**MAEDA Takaki** Executive Officer, Senior General Manager,  
Electronic Musical Instruments Business Unit



- Strong market reception for products based on the Slim & Smart concept
  - Technological advancement in areas such as sound source and user interface and user experience development
  - Efficient development and production capability through successful structural reform
- 
- Expanding demand for music in the home uncovered by the stay-at-home trend
  - Public reevaluation of electronic musical instruments



- Specialized electronic musical instrument manufacturers with tradition, links with music schools, and a product lineup with professional-level specifications
- Slowdown in the supply chain due to changes in the business environment
- Weakening of distribution functions due to COVID-19

## Sales composition target for Slim &amp; Smart product series

FYE 3/2022 (Result)

51%



FYE 3/2023 (Target)

Over 60%

## Expanding the enjoyment market, which delivers personalized access to playing and enjoying music, and creating new genres

## Background to strategy

The electronic musical instruments market saw business profits squeezed amid challenging conditions arising mainly from the environmental changes associated with the COVID-19 pandemic. Among these were a steep rise in parts and material prices, a large increase in marine transport costs, and foreign exchange rate fluctuations. Nevertheless, we see business opportunity in the expanding demand for music in the home uncovered by the stay-at-home trend.

With the saturation of the existing market, we have been creating an enjoyment market based on lifestyle proposals and the stay-at-home trend. In addition, by strengthening the Slim & Smart models that are the core profit driver, we have worked to attract new customers and create new genres.

The foundation for these efforts was the technological advancement nurtured over 40 years in areas such as sound source and user interface and user experience development, along with the efficient development, design, and production capabilities resulting from progress with structural reform.

Despite the challenging environment, we firmly grasp business opportunities and harness them for business development by leveraging our strengths and assets to the fullest.

## Direction of medium- to long-term strategy

The declared business vision of our Electronic Musical Instruments Business is to enrich people's spirits and lives by proposing a new lifestyle surrounded by pleasant sounds. We are implementing a business strategy aimed

at realizing this vision.

By evolving and adapting digital control technology for sound to develop new user experiences, we will achieve continuous expansion of the enjoyment market. In the future, we will redouble our development of experiences from the world of sound that fit seamlessly into everyday life, thereby seeking to create new businesses and new markets.

### Strengthening the brand and the business structure by driving forward the Slim & Smart strategy

In the fiscal year ending March 31, 2023, we will enhance the Slim & Smart product range with the aim of creating further demand. In September 2022, we will launch sales of the New Privia series, a new concept based on an evolution of performance, design, and mode of enjoyment. By promoting this product group together with a wide range of lifestyle proposals, we will open up the enjoyment market further and strengthen the business structure.

We will also work for more active user communication. One example of this is the dedicated app CASIO MUSIC SPACE, launched in January 2022, which offers users lessons to improve their playing through a game-type approach together with simulations of live performance and other experiences. Products of this kind will enable us to propose diverse ways of enjoying electronic musical instruments that can meet the needs of each individual user.

Meanwhile, we will promote the Privia and Casiotone brands and their quality through ambassadors and influencers who propose new themes and styles. As well as extending the reach and the impact of these messages,

we will deepen our collaborative partnerships with specialized distributors of electronic musical instruments to create a more advanced customer interface both offline and online.

Through hardware such as the Slim & Smart product range, whose distinctive character has won it strong popularity, coupled with software that reinforces its appeal and generates new music-playing experiences, we will further stimulate demand for personalized access to playing and enjoying music and thereby expand our business.

### Providing enjoyment in a variety of ways



CASIO MUSIC SPACE

Fitting an electronic keyboard with the newly developed sound source technology Vocal Synthesis adds a new acoustic dimension by enabling it to reproduce the human singing voice.



CT-S1000V

With its uniquely slim profile featuring integrated stand and pedal, the New Privia combines a design that complements home interiors with piano sound quality in a way that harmonizes with any and every lifestyle.



PX-S7000

## Business Strategy

## System Equipment Business

## Looking ahead to 2030

To adapt to the various future changes that we envisage in our operating environment, we will make full use of the customer and distribution assets that are our strengths and continue to provide customer-focused solutions based on digital marketing and our frontline response capability. Through these efforts, we will support customer success. By strengthening relationships with customers in this way, we will outline a business framework for sustainable growth into the future.

**FUJII Shigenori** Executive Officer, Senior General Manager,  
System Business Unit



- Customer assets (large number of loyal customers)
- CASIO brand and our industry presence (extensive record of co-creation)
- Marketing strength that reaches even individual stores and small-scale businesses (distribution assets)

- Spread of the IoT, accelerating DX, progress toward a cashless society, work style changes such as online working
- Increasingly widespread need for digital solutions across business from major corporations to small and medium enterprises



- Low profitability
- Insufficient system integration capabilities to propose total solutions

- Intensified competition due to universalization of basic technology
- Sluggish recovery by customer businesses due to COVID-19

## Targets for recurring service contracts

SA (electronic cash register) business

FYE 3/2022 (Result)

6,000 contracts



FYE 3/2023 (Target)

9,000 contracts

CHS (human resources solution) business

FYE 3/2022 (Result)

—



FYE 3/2023 (Target)

50 contracts

## Taking a customer-focused perspective to work together on building robust and forward-looking growth businesses that can achieve success

To address a long-standing profitability issue, the System Equipment Business has continued with fundamental restructuring including a switch from cash register sales to development around cashless services. It has also progressed with cost structure review and optimization of business sites and staff levels.

Going forward, we will continue working to establish a solution business focused on customer issues. Our aim is to build a win-win relationship with customer companies by addressing the diverse issues facing them in a drastically changing environment.

In the handheld terminal sector, we will direct efforts to productivity improvement solutions for essential workers in areas such as transport, logistics, and medical care. From fall 2022, we plan phased delivery to a large-scale customer on an order received in the previous fiscal year. In the electronic cash

register sector, we aim to provide comprehensive platforms that link local shopping areas with consumers. The systems involved are EZ Net registers and cashless services, which support cashless payment at individual stores, and shopping area packaged services, which support coordinated DX across the whole of a local commercial zone. Our businesses in the human resource solutions sector and the management support sector for small-scale businesses are experiencing a recovery in orders on demand growth due to COVID-19-related social changes and have secured stable profits. Here, we will progress with the provision of new services to support work style reform, review of human resource systems, the new invoicing system to be mandated in Japan from 2023, and other areas.

We will also continue to build a recurring-type service model to ensure a stable profit base.

# Development Headquarters (New Businesses)

## Looking ahead to 2030

The Development Headquarters has the role of new value creation and is responsible for developing component technologies and planning and promoting new business areas. In new business, we start with the base technology, where originality is an important focus, and work toward commercialization, which includes building a new business model. In the formulation of the business strategy, we draw on an expertise that has generated many products.



**MOCHINAGA Nobuyuki** Executive Managing Officer,  
Senior General Manager,  
Development Headquarters

- Capabilities in user interface development for electronics applications
  - Technology development capabilities in applications related to light, image, sound, music, etc.
  - Digital ability in human analysis technology and emotional expression technology
- 
- Increasingly diverse contemporary values that respect individuality
  - Aspiration toward enriched lifestyles that are safe and secure
  - Advanced society using AI and the IoT to respond to individual needs



- Universal platform development
  - Social infrastructure-related business
  - Government-led business
- 
- Universalization and standardization of electronic parts and software
  - Shortage of human resources in ICT engineering, etc.
  - Possibility of market entrants from other industries

## Building durable business models with distinctive core competencies

### Basic strategy

Our R&D activity is focused on technology development to create new value that links to the future. The strategy is to combine applied electronics technologies with effective utilization of our long years of marketing expertise to bring new businesses smoothly on stream.

Based on technology platforms in areas including miniaturization, low energy consumption, sound source, acoustics, optics, image processing, and printing, we develop authentication technology using partly AI-driven algorithm development, images, etc., and technologies including composite sensing and body dynamic analysis. Meanwhile, to enhance product appeal, we are devoting resources to research into motivated algorithms and emotional expression technology in order to develop new products and create new business areas.

### Key strategic points (new businesses)

In business areas such as health, beauty, and medical treatment, we will work to stimulate demand by developing solution-oriented products.

We will seek to expand these areas, which deploy unique technologies, to develop unprecedented businesses with a value creation base.

In the fiscal year ended March 31, 2022, we launched a running-related service and a nail-printing service, and in the fiscal year ending March 31, 2023 we aim to continue with the rollout of our dermo camera to diagnostic imaging services. In this way, we plan to set up appropriate solutions businesses in each business area.

Going forward, we will devote resources to human-focused sensing technology and emotional expression technology that resonates with people, using these and other technologies to help us create smart solution businesses that enrich our home and work life.

Development of running app



CASIO | asics

Launch of nail printer, July 2022



CASIO | Sanrio LICENSE

© 2022  
SANRIO CO., LTD.  
APPROVAL  
NO. L632636



CASIO | KOSÉ

Rollout of diagnostic imaging support services



Strategy by Function

# Technology

## Vision for the Engineering Headquarters

To enable timely delivery of the products and experiences the world needs and thereby expand the worldwide Casio fanbase, we are working energetically to put in place the necessary frameworks for new value creation and conduct related human resources development.

**KAWAI Tetsuya** Executive Managing Officer,  
Senior General Manager, Engineering Headquarters



## Basic approach

The Engineering Headquarters has made its mission to continuously broaden the global Casio fanbase with a user-first approach. To reflect this approach, we place emphasis on enhancing both "product concept," which forms user expectations in terms of function, performance, and design, and "product performance," which refers to quality and user-friendliness after purchase and use.

We see return on investment (ROI), which indicates added value from development investment, and added value per head of the development staff as key management indicators. Corresponding targets are set and monitored in each business and product area and the plan-do-check-act (PDCA) cycle is implemented with a strong focus on the status of value creation and improvement.

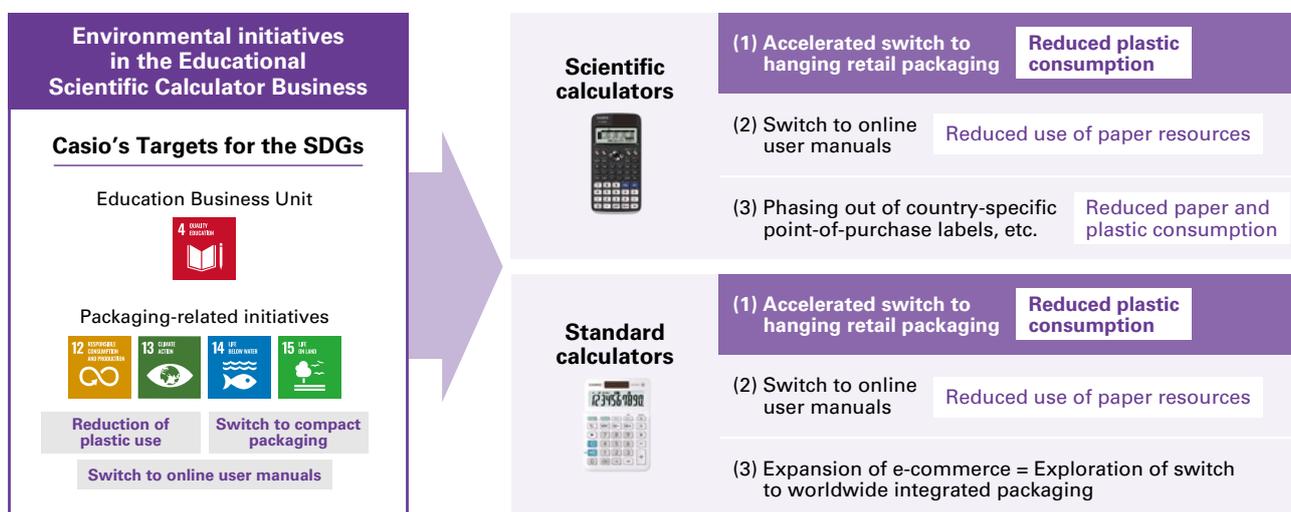
## Key strategies and specific initiatives

With our focus on developing the technology the world needs, we will successfully develop color, material, and finish (CMF) specifications that our competitors cannot emulate to continuously create new value in tune with the environment and contemporary lifestyles.

Creating new businesses and generating added value will allow us to address social issues as a business enterprise that plays a necessary role in society. We are therefore devoting energies to developing the necessary frameworks and human resources. We are also working with collaboration partners to develop solutions businesses.

As part of our global environmental conservation initiatives, we are using the Casio Green Targets as a guide to reducing consumption of virgin plastic derived from fossil fuel materials, starting with the mass production of timepiece products using alternative materials. We will reduce consumption in the fiscal year ending March 31, 2025 by 11% compared to the fiscal year ended March 31, 2021. We are also taking action for the use of sustainable wood. Specifically in the Electronic Musical Instruments Business, we are working toward a target of using 50% certified forest material in the fiscal year ending March 31, 2025.

To reduce plastic consumption in the area of product packaging, we are switching in the Education Business to paper packaging and more compact design, which is also designed to reduce distribution costs. This will subsequently be rolled out to all products.



# Production and Supply Chain Management (SCM)

## Vision for the Production Headquarters

In addition to converting production sites to smart factories, we will move ahead with reform of the supply chain, from planning and procurement to production and distribution, and convert to smart operation of the whole value chain, including the engineering chain from planning and development to design and production. This will enable us to provide products that meet customer needs with optimal quality, cost, and delivery lead time.

**FUKUSHI Takumi** Executive Officer,  
Senior General Manager, Production Headquarters



## Basic Approach

Since the fiscal year ended March 31, 2018, Casio has worked on the restructuring of production bases centered around the Yamagata mother factory and on the standardization of production processes. This has resulted in an increase in the in-house production ratio, higher efficiency at our own production bases, and resolution of quality issues. Since the fiscal year ended March 31, 2021, as part of a management strategy emphasizing the user experience, we have been engaged in reform of our manufacturing bases centered on supply chain reform and conversion to smart factory operation. This is designed to ensure flexible and rapid provision of more personalized products even under uncertain conditions in society.

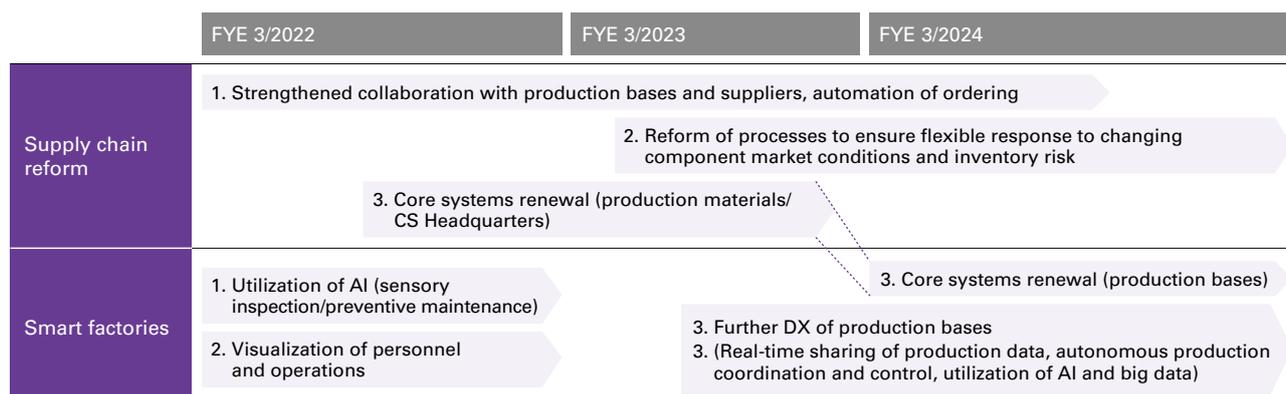
## Key strategies and specific initiatives

As part of supply chain reform, we are progressing with reengineering, introduction of ICT, and system integration to realize real-time coordination between sales planning and manufacturing and procurement planning, thereby improving shipping accuracy. Already, we are using data linking within and outside the Company, particularly in the area of component delivery management, to drive system development for improved operational efficiency and visualization. Seamless digital data linking between

development and manufacturing (concurrent engineering) is another step in the progressive building of a platform linking the whole value chain together. We plan to establish and begin operation of core processes by the end of March 2024. To respond to the delays in procurement lead time caused by the tight situation in the semiconductor market, we are systematizing the formulation of business, sales, and manufacturing plans and undertaking further reform of operational processes. These initiatives represent strategic moves for a more robust and efficient supply chain able to respond flexibly to new crises and realize resilient management.

For the reform of manufacturing bases, the Yamagata mother factory is serving as a pilot site for smart factory initiatives at all manufacturing bases. So far, we have already realized the automation of production for timepiece products, digital pianos, and scientific calculators. Going forward, by additionally deploying AI and IoT technology to achieve real-time visualization and linking of manufacturing and quality information in these areas, we will achieve improved quality in all operational processes and maximization of manufacturing efficiency. This will also enable us to establish a production system able to respond flexibly to changes in the external environment, including the growing geopolitical risk facing manufacturing bases.

## Medium-term roadmap



## Strategy by Function

# Sales and Marketing

## Vision for the Global Marketing Headquarters

To continuously provide optimal value through connection with each individual user, we will practice One2One marketing based on understanding users and correctly analyzing the market.

**KASHIO Takashi** Senior Executive Managing Officer,  
Senior General Manager,  
Global Marketing Headquarters



## Basic approach

We are witnessing continuing upheaval in the global business environment as the market is transformed by changing lifestyles and consumer habits and other impacts. To respond to these challenges, we need to continuously provide optimal value by building a deep and lasting connection with each individual user. To do so, the Global Marketing Headquarters has announced a basic policy of user-focused One2One marketing. We aim to understand users by collecting and analyzing user information and to transform our marketing style to one based on maintaining and deepening our connection with users. We are additionally working to strengthen the marketing structure in order to correctly analyze the market and then apply the right marketing cycle for each region based on its medium- to long-term potential. Building on this basic policy, we will roll out the three key strategies set out below.

## Key strategies and specific initiatives

The first key strategy is strengthening of relationships with distribution partners. Distribution is the entry point to relationships with users and is an important Casio asset. By accelerating collaboration with distributors, who have strong marketing ability and their own customer base, we will roll out marketing activity firmly focused on users. In the Timepiece Business, we will collaborate on products and promotions with partners equipped for brand co-creation. In the Electronic Musical Instruments Business, we will propose new lifestyles with distributors who have core users. This will enable us to promote the Slim & Smart series of strategic products and build up the enjoyment market, an innovative sector previously absent from the electronic musical instruments market.

The second key strategy is strengthening of e-commerce. In response to the drastic changes in

customer purchasing habits, we will transform our marketing style so as to provide optimal value. This change will also be rolled out to e-commerce websites, including directly managed businesses. We will also accelerate the collection of user information. In the Timepiece Business, we are progressing with the deployment of digital behavior analysis tools and have set a target of 10 million registered users, made up of 5 million email club members and 5 million ID-registered users.

The third key strategy is expansion of the loyal fanbase. Our vision for Casio is to nurture permanent connections with users as the provider of the most important value for them. To realize this vision, we will put in place a digital marketing platform with global reach as a framework for direct connection with customers. In the Timepiece Business with its worldwide base of G-SHOCK fans, to develop One2One marketing worldwide, we will create a network of flagship stores to serve as forums for user interaction and use e-commerce as a medium to integrate online and offline experiences. To mark the 40th anniversary of G-SHOCK, meanwhile, we will roll out global-scale promotions to further develop the loyal fanbase. In the Education Business, amid a rapidly changing business environment, Casio will exploit to the fullest its asset of close links with teachers and schools to expand its global educator network and roll out sales and marketing activities finely tuned to the educational environments of different countries worldwide. This will contribute to education worldwide by providing the optimal hardware and apps for users, which will also help us to respond to the accelerating rollout of ICT.

In parallel with these key strategies, we will seek to accelerate global branding and roll out sustainability-conscious marketing activity in order to continue serving and supporting each individual user.

# Customer Satisfaction (CS)

## Vision for the CS Headquarters

We pursue high quality and user-friendliness that delight the customer and aim to build an after-service system able to adapt to any change in the business environment. We will also roll out activities to contribute to further product evolution based on customer information feedback.

**KASHIO Tetsuo** Director, Executive Managing Officer,  
Senior General Manager, CS Headquarters



## Basic approach

At the CS Headquarters, we work to improve the quality of service for products and apps and other customer purchases and to enhance after-service.

As an organization independent of the different business departments, we establish uniform Companywide quality standards and maintain oversight to ensure that products meet these standards as well as complying with the laws and regulations of each country. In this way, we seek to inspire customer trust and confidence in the Casio brand.

We also collect and analyze inquiries from customers actually using our products and services as well as data on products sent in for repair. We share our findings with the relevant departments and implement the PDCA (plan-do-check-action) cycle as a way of improving products and services and thereby increasing customer satisfaction.

Particularly now, with the products and services of each of Casio's businesses shifting from use to experience, product structure is becoming increasingly complex to enable compatibility with apps and other companies' products. This means that greater skill and expertise is required to give clear and simple instructions for use and to identify the cause of product malfunction.

Our new businesses often adopt distribution and sales

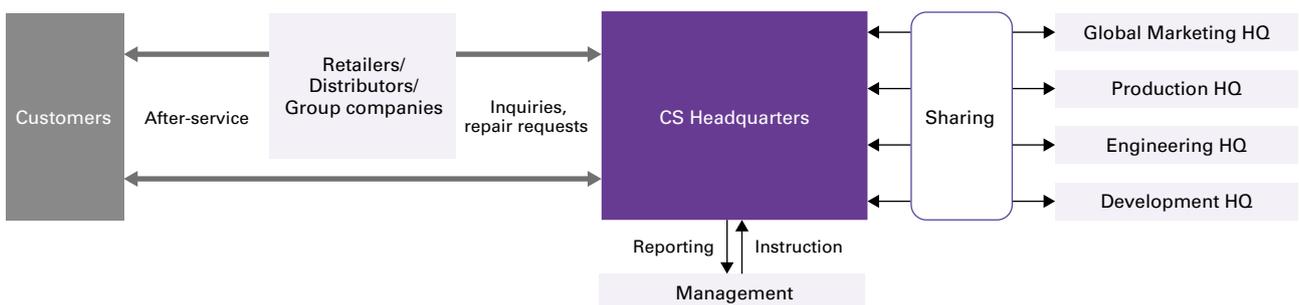
methods different to those used with existing products. We are therefore working to put in place structures and frameworks to enable us to gather information and thereby respond more swiftly in these areas.

## Key strategies and specific initiatives

Against this background, Casio is carrying out an upgrade of its repair management system, which also covers overseas Group companies. The new system was introduced in Germany in the fiscal year ended March 31, 2022 and will be expanded to the United Kingdom in the fiscal year ending March 31, 2023, after which we plan to roll it out successively to the United States and Japan. Its introduction is designed to speed up the collection of repair data to serve increased efficiency and quality improvement in repair operations, which will in turn enhance CS and product quality.

We are also working to improve the ratio of online user manuals. Replacing thick user manuals with slimline simplified versions reduces environmental burden by reducing paper consumption and lightening transport loads. By additionally making use of online tools such as videos, we are working to provide customers with user manuals that are easier to follow.

## CS improvement system



## Strategy by Function

**Digital Transformation (DX)****Future vision for the Digital Division**

Amid drastic social change, we will utilize data and digital technology to build a user-centered value chain that creates a connection with each individual user to provide them with optimal value.

**ISHIZUKI Hironori** Executive Officer,  
Senior General Manager, Digital Division

**Basic approach**

Casio believes that, in order to remain a highly valued partner for users amid the uncertainty and unpredictability of the current business environment, where digitalization is progressing rapidly, it needs to put in place systems and processes that will create direct connections with users to provide them with optimal experiences. Casio has therefore designated the building of a user-centered value chain as its DX target, and will make appropriate use of data and digital technology to promote the switch to a user-first approach across the range of business activities from development and production to marketing. Specifically, we will pursue the three initiatives set out below.

**Key strategies and specific initiatives**

Our first initiative is to deliver individually optimized user experiences. Through websites, apps, stores, and other user contact points, we are promoting a shared global platform encompassing e-commerce, product information, content distribution, membership programs such as CASIO ID, and other new systems. By expanding this operation, we will be in a position to form direct connections with loyal CASIO and G-SHOCK fans worldwide. By additionally putting in place a framework for the integrated management and utilization of the user data collected at these contact points, we aim to provide each individual user with optimal experiences in line with their personal preferences, life stage, and other attributes.

Our second initiative is to build a highly resilient management and business platform. In order to continue to provide user value while adapting to drastic social change,

steeply rising raw material costs, and a wide range of other external impacts, we are progressing with the switch to new operational processes in development and production based on data and digital technology. We are likewise making improvements in the mainstay internal systems that support core business operations, for instance by upgrading to systems that are resilient to change in the business environment and compatible with new business models. Additionally, as work styles undergo major changes, we are reviewing a wide range of indirect operations in terms of processes and rules and implementing fundamental reform to raise employee productivity and satisfaction.

Our third initiative is to strengthen IT governance and security. We are strengthening governance and security in this area so as to maintain normal functioning of the IT infrastructure underpinning corporate operations even in the high-risk situation of social instability created by natural disasters, pandemics, cyberattacks, or similar events. To address cybersecurity in particular, we work in routine times to put in place a range of measures and roll out zero trust networks to protect against attacks of various kinds, additionally ensuring comprehensive employee education. In the event of an incident nevertheless occurring, we have systems and processes in place to enable urgent response, such as the Computer Security Incident Response Team (CSIRT).

By using these initiatives to support Casio's businesses with both data and digital technologies, we aim to contribute to achieving business growth and maximizing corporate value.

# Organization and Human Resources

## People—Our greatest asset

Our human resource strategy is crucial to carrying out our management strategy. It is the efforts of our people that make it possible to execute the management strategy and fulfill the management plan. A business can grow only by growing its human resources. With that insight, Casio regards its human resources (employees) as its most important management asset and believes that sustainable growth of human resources is key to sustainable growth of corporate value. Accordingly, we seek to maximize the value of our human resources.

To do that, it is essential that we enhance human resource development in line with changes in the social structure and business environment and also that we develop a workplace environment that enables our diverse pool of human resources to meet their full potential. We aim to build a human resource platform that supports each individual to gain expertise and play an active role as a true professional. To that end, we will work to put in place and maintain the required frameworks, thereby creating a corporate culture where each individual feels rewarded and energized in their work.

## Human resource development

Casio defines its vision for human resources with three keywords: Creativity, Communication, and Self-fulfillment.



Our aim is to nurture and strengthen our human resources in line with this vision, namely, to cultivate creative talent with a rich spirit of challenge and promote professional development for early orientation toward areas of expertise. To achieve this, we have put in place a human resource development system and introduced a range of training schemes and programs.

Our human resource development system emphasizes on-the-job training to improve skills through work practice, with a complimentary role for off-the-job training, for instance to impart theoretical knowledge. For all employee and managerial grades, we provide the appropriate training while seeking to achieve continuous improvement and expansion of scope.

We also offer a career support system to encourage employees to show self-initiative and to ensure that they feel motivated and energized in their work. As an additional part of our efforts to guide employees in shaping their own professional path, we provide an opportunity once a year for them to take stock of their career.

## Creating the necessary platforms for implementing the management strategy

As we work to implement the New Casio C30 Project and other management plans in an operating environment characterized by drastic change and future uncertainty, we have identified three key issues for the fiscal year ending March 31, 2023 and are strengthening related initiatives.

### Key issues for implementing the management strategy

1. Enhancing human resource and organizational strength (visualization)
2. Promoting D&I
3. Promoting health and productivity management

### 1. Enhancing human resource and organizational strength (visualization)

Through analysis and design activities focused on the human resource portfolio, we will identify issues with current human resources and the human resources strategically necessary going forward and respond by reinforcing related initiatives. By doing so, we aim to optimize organizational structures and human resource allocation.

### 2. Promoting D&I

The interplay of diverse values among employees creates new value. We therefore place value on employees' different perspectives with the aim of generating innovation through an environment that is the meeting point for diverse sets of values. We will accelerate the promotion of diversity by establishing the following KPIs:

- Provision of environments/systems that support diverse work styles
- Ratio of female managers, ratio of females among graduate recruits, ratio of employees with disabilities, rate of childcare leave usage among male employees, rate of employee retention three years after return from childcare leave

### 3. Promoting health and productivity management

We introduced an enhanced approach to health and productivity management in 2022 with the joint aims of raising productivity through maintenance and improvement of employee health and increasing Casio's appeal to potential human resources through brand image enhancement. We put in place a system headed by the CHRO and set up a health and productivity management promotion team. Under a cross-departmental structure covering the whole of Casio, the team is rolling out a range of health promotion measures around a set of nine key points.

Casio Group Basic Policy on Maintaining and Promoting Health  
[https://world.casio.com/csr/social/health\\_safety/](https://world.casio.com/csr/social/health_safety/)

## Management Platform Strategy

# Human Rights/Supply Chain Management (SCM)

## Human Rights

### Basic approach

Casio operates its business globally and its business activities depend on relations with various stakeholders. Casio understands that, in the course of pursuing its business activities, there is the potential for it to be involved in negative impacts on the human rights of a diverse range of stakeholders. An insufficient response to human rights issues can develop into serious business risks such as significant decline in the corporate brand value, product boycotts, and suspension of business transactions by business partners. As it continues with global business expansion going forward, Casio recognizes respect for human rights as a key sustainability issue and is committed to strengthening initiatives based on international human rights-related codes of conduct.

### Main initiatives

On July 1, 2014, we established the Casio Group Basic Policy on Respect for Human Rights. The policy specifies, among other things, the Group's commitment to supporting and respecting international codes of conduct, implementing ongoing human rights initiatives based on the United Nations Guiding Principles on Business and Human Rights, and putting in place and operating a system for human rights due diligence. We ensure that all employees are familiar with the policy. Specifically, in 2014 we created our own tool for checking the status of human rights, which we have used globally across the Group to continuously monitor the status of initiatives to address human rights issues. In the fiscal year ended March 31, 2022, we reviewed the results of a human rights issue check that had been ongoing since 2016 and updated our human rights checking tool. In the fiscal year ending March 31, 2023, we plan to start monitoring of initiatives on human rights-related issues. Looking ahead, we will implement the PDCA cycle at all business sites to improve and strive to strengthen the human rights due diligence of the entire Group.

## SCM

### Basic approach

Casio procures a wide range of materials from suppliers in Japan, China, and the ASEAN countries. In the event of these domestic and overseas suppliers becoming involved in human rights violations, labor problems, environmental destruction, or other issues, Casio would be exposed to risk that could develop into suspension of transactions with business partners, degradation of the brand image, labor strikes, lawsuits, or other issues. By implementing sustainability initiatives throughout the supply chain, we will not only reduce such social and environmental risks, but also ensure the safe and stable procurement of materials. We therefore believe that it is important for Casio to practice social responsibility through CSR procurement.

### Main initiatives

In order to carry out initiatives throughout the supply chain within a framework of fair and equitable transactions, Casio has established Procurement Policies that address human rights, occupational safety, environmental conservation, and related themes. In order to build a partnership structure with its suppliers, Casio has established Supplier Guidelines and introduced a system for regular monitoring. Specifically, since 2009 suppliers have been requested to complete an annual questionnaire on their practice of corporate social responsibility. In the fiscal year ended March 31, 2022, responses were received from 148 out of 149 contacted suppliers in Japan and from all 285 contacted suppliers overseas (China and Thailand). This questionnaire is designed in a way to better understand the status of suppliers' CSR initiatives. Casio analyzes the results of the questionnaire and uses the results to provide feedback on its approach and vision for CSR procurement. In this manner, we strive for ongoing improvement.

# Environment

## Basic approach

Casio has established the Casio Environmental Vision and the Casio Group Environmental Policy with the aim of realizing a sustainable global society in the future. Within these, three ideas have been positioned as key issues which need to be solved in the long term: realizing a decarbonized society, realizing a recycling society, and living in harmony with nature. After creating a desirable future vision for each of these ideas, we will look back at how they can be solved, setting interim targets and working together as a Group to achieve the aims.

## Realizing a decarbonized society

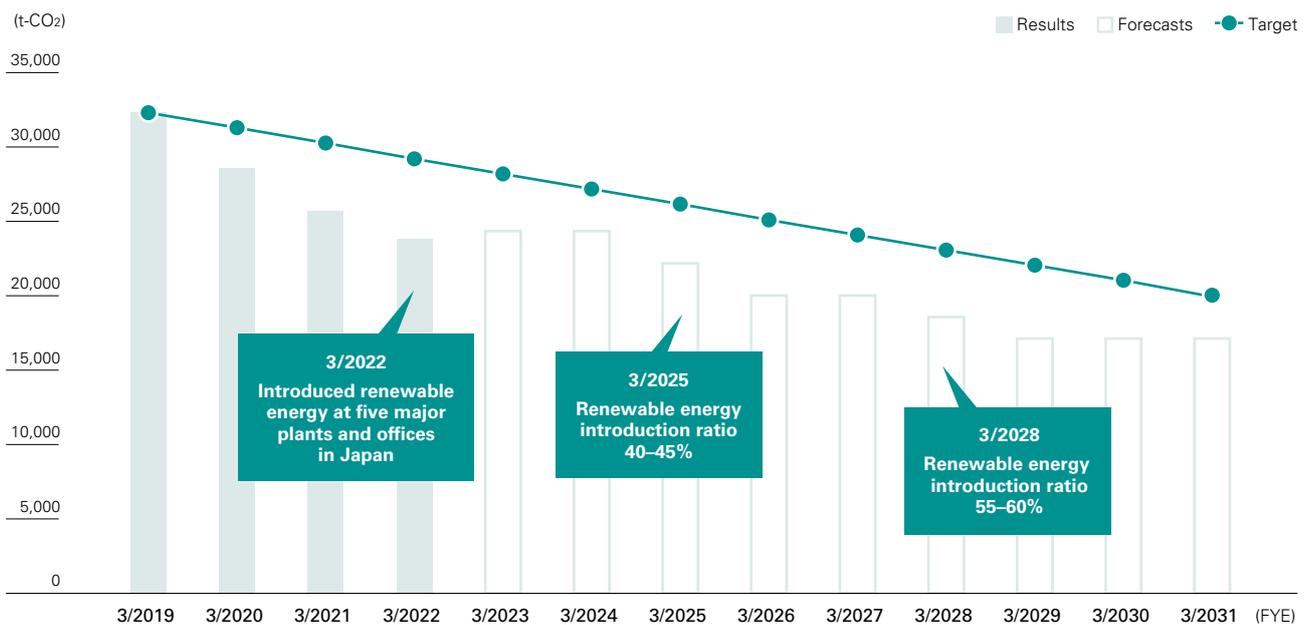
With climate change risks in the spotlight worldwide, Casio will promote even greater energy savings as well as expand its use of renewable energy and secure alternative sources of energy in the value chain.

Regarding GHG (greenhouse gas) emissions from our business activities, we have further increased our reduction target after revising our conventional calculation standards for greater precision. Specifically, we modified our target for Scope 1 and 2 emissions to “reduce 38% by

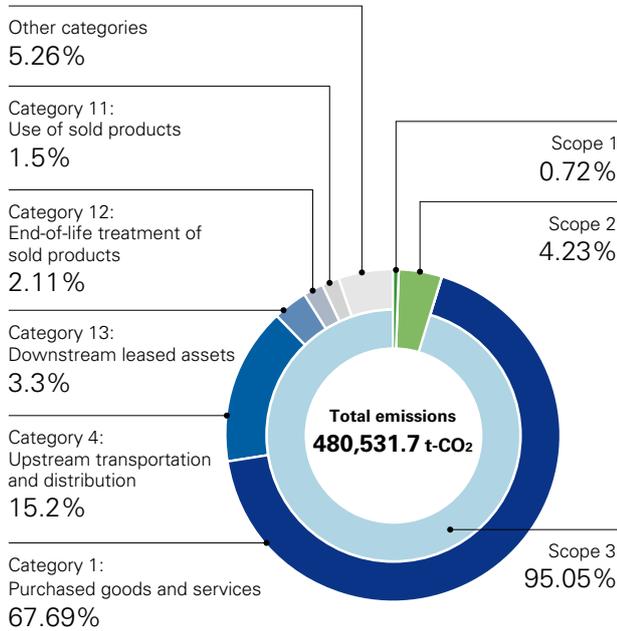
FYE 3/2031 compared with FYE 3/2019 and achieve virtually zero emissions by FYE 3/2051.” To achieve this target, we will now promote the introduction of highly efficient and energy-saving facilities, improvement of operational processes, and use of renewable energy.

In July 2021, we made a move to switch our five major domestic sites over to 100% renewable energy-derived electricity, reducing annual carbon emissions for the Company in Japan by approximately 45%. To mark our joining the RE100 renewable energy initiative in December 2021, we declared our plan to roll out the utilization of renewable energy to the whole Group. Since more than 60% of Casio’s carbon emissions in the entire value chain are attributed to purchased goods and services (Category 1 of Scope 3), we have launched a survey of GHG emissions reduction by our major suppliers. We have increased our reduction target for Scope 3 emissions to reduce GHG emissions from purchased goods and services (Category 1) and use of sold products (Category 11) by 30% by FYE 3/2031 compared to FYE 3/2019. This FYE 3/2031 target has also been certified by SBTi as a goal based on scientific evidence.

## CO2 emissions and reduction targets (Scope 1 and 2)



### CO2 emissions across entire value chain



### Scope 1 and 2 reduction targets

	Scope 2 calculation method	Scope 1 and 2 total targets		
		Base year	Target year	Target year reduction rate
Medium-term target	Market-based	FYE 3/ 2019	FYE 3/2031	38%
Long-term target	Market-based	FYE 3/ 2019	FYE 3/2051	100%

### Scope 3 reduction target

Target categories	Base year	Target year	Target year reduction rate
Category 1: Purchased goods and services Category 11: Use of sold products	FYE 3/2019	FYE 3/2031	30%

### Realizing a recycling society

Casio is working to conserve resources and recycle throughout the value chain. As well as making full use of technologies that achieve smaller, lighter, thinner, and more energy-efficient designs, which are core competencies from the development and design stage, we manufacture environmentally friendly products, such as those designed with recycling in mind. Products that meet our own high standards receive certification as Casio Green Star Products or Casio Super Green Star Products.

Additionally, we are working to reduce waste generated at each of our business sites and recycle more of the waste with the goal of completely eliminating waste bound for landfill.

### Living in harmony with nature

Casio positions living in harmony with nature as an important environmental challenge. Based on the Casio Group Biodiversity Guidelines, we are promoting activities aimed at living in harmony with nature, while closely monitoring developments in the business environment and the latest regulations.

Meanwhile, in the Timepiece Business, we are working to produce more products in collaboration with nature conservation organizations from the perspective of living in harmony with nature.

### Information disclosure based on TCFD recommendations

Casio announced its support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in April 2021 and uses the corporate website to disclose information on governance, strategy, risk management, and indicators and targets in accordance with the recommendations. Going forward, Casio will work to further strengthen climate change-related governance, formulate strategy based on analysis of risks and opportunities, and disclose information on associated financial impacts.

Information disclosure based on TCFD recommendations  
<https://world.casio.com/csr/concept/tcfd/>



# ESG Messages from Corporate Officers

Through initiatives to strengthen and enhance corporate governance, we will realize early identification of issues and rapid response, leading in turn to strengthened resilience.

**YAMAGISHI Toshiyuki** Director, Executive Officer  
Responsible for Corporate  
Governance Strategy



## Toward stronger and enhanced corporate governance

To meet the expectations of stakeholders by continuously increasing corporate value, Casio recognizes that it is crucially important not only to ensure swift decision-making and proper performance of duties, but also to strengthen management oversight functions in order to enhance management soundness and transparency. We are accordingly pursuing a range of initiatives to strengthen and enhance corporate governance.

We believe that it is particularly important to vitalize the functions of the Board of Directors. To that end, we implemented the three main measures outlined below.

First, we enhanced the oversight, supervision, and audit functions of the Board of Directors and the Audit & Supervisory Committee by appointing the chair of the Audit & Supervisory Committee from among those committee members who are also outside directors, and by promoting close communication between outside and inside directors through meetings and other channels.

Second, we strengthened the role of the outside directors by making them the majority on the Nomination and Compensation Committees, which were established to strengthen the transparency, independence, objectivity, and accountability of the process for deciding director appointments and compensation, and by additionally stipulating that the chair of the committees is to be appointed from among the outside directors.

Third, we introduced a system whereby the outside directors now attend as appropriate the Management Meeting, Internal Control Committee, and Sustainability Committee to exercise an advisory function by offering opinions and comments.

With drastic changes in the business environment set to continue, we will apply the RPDCA management cycle, which integrates a research perspective, to achieve early detection of corporate governance-related issues, sharing of

related information, and agile and rapid response. This will have the effect of strengthening resilience from a corporate governance approach.

## Casio Business Conduct Guidelines

To ensure that corporate officers and employees act and speak responsibly at all times on the basis of sound judgment, and to enhance understanding of the importance of compliance, we have replaced the previous Casio Group Code of Conduct with a code that outlines in concrete terms how each individual should behave and communicate: the Casio Business Conduct Guidelines.

To adapt to the changing business environment, we enhanced content relating to compliance with laws and regulations and ethical conduct. So that corporate officers and employees can readily check their own work and conduct, the guidelines also give access for reference to the internal regulations that are its basis. The guidelines additionally promote the creation of a diversity-friendly and supportive workplace environment and an organizational culture that fosters motivation and a rich spirit of challenge.

I believe that it is important for the guidelines to become firmly embedded throughout the organization and one of my tasks going forward will be to drive continuing initiatives to that end.

Strengthening and enhancing corporate governance is, in my opinion, vitally important. In order to put in place the optimal corporate governance system for our stakeholders and society, I will continue with constant review, updating the system in response to changing conditions.

In accordance with our restatement of what makes Casio's existence valuable, we have redefined what sustainability means to Casio and have set out a sustainability strategy that integrates the growth strategy with strategies for resolving environmental and social issues.

**SHINODA Yutaka** Executive Officer Responsible for Environmental Strategy of the Company & Building Next-Generation Environment



### Casio's approach to sustainability

At Casio, we recognize sustainability as an important management issue for the sustainable development of our Company and society. We have achieved inclusion in a number of global ESG investment indices and other rating systems. This is the result of studying the expectations and demands placed on us by society so as to identify material issues and then pursuing initiatives in response to each of them. In the area of sustainability activities, we believe that it is also essential for each business unit and function to operate its own PDCA cycle. Accordingly, in the fiscal year ended March 31, 2020, we specified SDG-linked initiatives for each business. In April 2021, we set sustainability targets based on linking the SDGs to the role of each business unit and function. In October of that year, we restructured our environmental philosophy system and formulated the Casio Green Targets, which are targets for environmental impact reduction through business activities.

### Putting in place a new sustainability strategy

The integration of the sustainability plan with the strategy of each business unit and function is still a work in progress. We believe there remains room for improvement here, for instance in strengthening our ability to adapt to change in the business environment in a way that is focused on sustainability and in establishing clearly defined KPIs (key performance indicators) and KGLs (key goal indicators) in the field of sustainability together with structures to promote them.

In coordination with the New CASIO C30 Project, we will therefore redefine going forward what sustainability means for Casio so as to move toward a more resilient corporate structure. What makes Casio's existence valuable is continuously creating things our users cherish more than anything. Sustainability is the domain where business activities aimed at realizing that goal overlap with

environmental and social issues. We will seek to expand this domain to delineate a sustainability strategy that integrates a growth strategy with strategies for resolving social issues. We aim additionally to promote information sharing and dialogue within and outside the Company by designating each of these areas of overlap as an area for the identification of material issues and the setting of sustainability targets and Casio Green Targets (see figure below).

Until the end of the fiscal year ended March 31, 2022, I was working to strengthen SCM and manufacturing capabilities as executive officer responsible for production.

What I perceived clearly in that role is that collaboration with stakeholders is indispensable for sustainability. Going forward, as executive officer responsible for sustainability, I want to see Casio evolve as a company that consistently drives Creativity for Contribution in partnership with stakeholders.

