

PRODUCTION

MAKE WAVES 1.0

While pursuing our strengths of craftsmanship and advanced technologies, we will establish optimal foundations for global production and bolster our production capacity to industry-leading levels. By doing so, we will further enhance our production operations in terms of quality, cost, delivery, safety, and the environment (QCQDSE).

Shinobu Kawase
Managing Executive Officer
Executive General Manager of Musical Instruments & Audio Products Production Unit



The Strengths of Yamaha's Production Craftsmanship and Technologies

Amid our long history of being involved in the production of musical instruments, we have refined the craftsmanship capabilities that have helped us put the finishing touches on even better musical instruments. Craftsmanship involves creating products through the vision and handwork of people, and our craftsmanship is a significant element in differentiating ourselves from other companies. Linking our craftsmanship capabilities with our proprietary technology for the scientific evaluation of assessing human sensibilities is another important factor in realizing further differentiation.

Meanwhile, through scientific research of each production process and the utilization of cutting-edge techniques, we have accumulated a foundation of industry-leading manufacturing technologies. The fact that we are able to maintain and integrate our refined craftsmanship capabilities and advanced technologies at a high level is what sets our production processes apart from other companies. It also serves as a source of our competitiveness.

Global Production Structure

From early on in our history, we have established overseas production bases. Currently, we have key production bases in Japan, China, Indonesia, Malaysia, and India. The establishment of a global production structure optimized to each of our business domains is another factor that contributes to our overwhelmingly high level of competitiveness.

Yamaha Technical Skills Training

Putting the finishing touches on a musical instrument is a kind of craftsmanship that represents both an art and a technique. By working to visualize and transform tacit knowledge of craftsmanship to explicit knowledge, we established the Yamaha Technical Skills Training, thereby enabling this know-how and craftsmanship to be transmitted and shared across the Company. In this way, we made it easier for our young technicians to inherit the exceptional skills of their predecessors and pass those skills down to future generations. Recently, we have been making use of IT and IoT within this training.

In our efforts to establish a global production structure, the Yamaha Technical Skills Training has been playing a key role in cultivating personnel responsible for production at each production base.

Review of NEXT STAGE 12

We made progress with the major initiatives of the previous medium-term management plan and results were generally in line with our expectations.

In terms of our strategy for production bases, we established a new factory in India, which commenced operations in April 2019.

We also worked to establish a new factory in Indonesia, which is slated to start production during fiscal 2020. As for our strategy to reduce costs, we were unable to achieve the amount of cost reductions we aimed for due to soaring procurement prices for electronic components. However, we did make such accomplishments as reorganizing our production processes and establishing a global procurement structure. For our supply chain management (SCM) strategy, we standardized business processes by improving our current systems and made progress with collaboration between business units. We also enhanced the precision of our production plans. Additionally, we have been gradually moving forward with preparations to introduce new SCM systems under the new medium-term management plan.



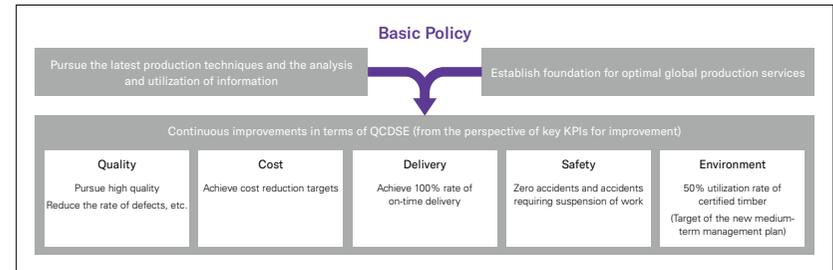
New India Factory (Chennai)
Start of product shipping in April 2019
This factory aims to realize integrated production and sales operations while providing affordable products with high levels of cost competitiveness through planning, procurement, production, and distribution that is optimized for India.

Approach under the New Medium-Term Management Plan

Our production strategy under the new medium-term management plan is built upon the three pillars of production engineering, production information management, and global production services. For production engineering, we will create value by innovating our production methods. In terms of production information management, we will consider how we can best manage production information with a view to improving and evolving our overall production operations. Global production services essentially boils down to establishing a production infrastructure, as this part of our strategy involves the organizational and personnel structure of our production operations as well as the procurement of materials and components. In tandem with pursuing the three pillars of our production strategy, we will combine our craftsmanship capabilities and advanced technologies at a high level, thereby further enhancing our production operations in terms of quality, cost, delivery, safety, and the environment (QCQDSE).

In regard to the continuous reduction of production costs, a major theme of the new medium-term management plan, we aim for a gross cost reduction of ¥10.3 billion and a net cost reduction of ¥5.5 billion over the plan's three-year period. To reach this target, we will promote the following three efforts: Reorganize our global production processes, reduce procurement costs by promoting bulk purchasing and value analysis/value engineering, and automate production processes at overseas factories.

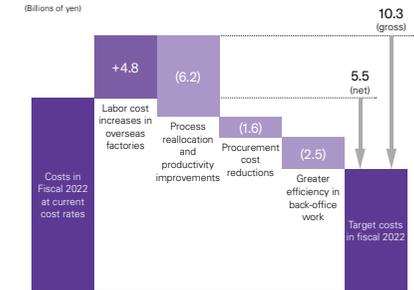
Production Strategy under the New Medium-Term Management Plan



Three Pillars of Our Production Strategy

<p>Production engineering (Production hardware) Develop technologies to innovate production processes Establish competitive production processes</p>	<p>Reorganization of production processes, establishment of new factories, promotion of process automation and RPA, development of production methods and material development, enhancement of production processes</p>
<p>Production information management (Production software) Realize a digital transformation (DX) within our production management</p>	<p>Establishment and evolution of SCM systems, utilization of IoT, analysis of production information and improvement in utilization capabilities, establishment of production structure linked to market trends</p>
<p>Global production services (Production infrastructure) Strengthen production structure (organization and personnel) Stabilize procurement and reduce costs by establishing a procurement structure (see graph on right)</p>	<p>Establishment of regional headquarters, development and optimal allocation of human resources, establishment and enhancement of global procurement structure, promotion of sustainable forest resources</p>

Cost Reduction Analysis



Efforts toward Sustainable Timber

A large number of instruments are made from primarily timber, including pianos, string and percussion instruments, and woodwind instruments. Taking into account the fact that we use a diverse range of timber in our business activities, we are actively promoting efforts to maintain valuable timber resources and utilize these resources sustainably with a focus on 50 to 100 years in the future. In addition to giving consideration to the preservation of



Efforts related to timber resources in Tanzania
A project to create a business model that enables the sustainable use of materials for woodwind instruments. This project aims to realize sustainable timber procurement and forest management that encourage coexistence with local communities.

forests and the volume of timber resources, it is imperative that we ensure our supply chain is economically sustainable as well. It is also important to contribute to the development of local communities in timber-producing areas through the creation of employment opportunities and the establishment of infrastructure. Under the new medium-term management plan, one of our management targets is the non-financial target of achieving a 50% utilization rate of certified timber for the first time.



Collaborative Research with academia (Kyoto University, etc.)
Concluded a comprehensive research agreement with Kyoto University aimed at the sustainable cultivation and use of forest resources in October 2018. Through this agreement, we intend to conduct research on scarce timber in Africa and Asia that is essential in creating quality sounds. We also plan on engaging in research on forest conservation ecosystems that will lead to new employment opportunities as well as research on new materials.

SALES

In our business domains centered on sound and music, we will expand and optimize our contact points with customers and strive to gain an accurate understanding of market trends and customer needs. At the same time, we will promote the value that our products and services offer to the greatest extent possible. In these ways, we will aim to expand sales.

Seiichi Yamaguchi
Executive Officer
Executive General Manager of Musical Instruments & Audio Products Sales Unit



The Strengths of Yamaha's Sales

Global Sales Activities That Are Deeply Rooted in Local Communities

We have established sales offices in over 30 countries and regions around the world, thereby rolling out our business on a global scale. In key markets, we have established direct sales networks supported by our local subsidiaries. In emerging markets, we approach customers through our authorized distributors. Our sales networks cater to local characteristics and span a wide range of outlets, including specialty stores, chain stores, mass retailers, and e-commerce. The ability to ascertain local music cultures and customer needs through these sales networks and promote sales strategies in accordance with local characteristics represents one of our major strengths.

Added Value Promotion and Price Optimization

We give sufficient consideration to such factors as the market environment, competitive relationships, and product features in order to promote efforts to optimize our prices so that they appropriately reflect the value a product offers. In addition to revising the sales price of existing products, we work to enhance added value when introducing new products, or when adding new services to existing products, and attach prices that appropriately reflect this added value.

Artist Relations and Service Locations

To develop even more attractive products and services, we are expanding and enhancing our locations for maintaining relations with artists around the world. Our extensive network with the world's top artists and music education institutions is another one of our major strengths.

Review of NEXT STAGE 12

We promoted "enhance customer interaction," a key strategy adopted under NEXT STAGE 12, in each country and region of

operation, helping to grow sales by 8% over the three-year period of the plan.

We steadily promoted sales activities with a particular focus on expanding our sales networks, promoting activities to popularize music education based on local needs, improving our personnel structure to strengthen customer support, and expanding our products and services to meet customer needs. In the musical instruments business, we took steps to establish sales networks and music schools centered on emerging countries, thereby expanding our customer contact points. For the audio equipment business, in addition to strengthening our internal personnel structure, we significantly increased the number of audio contractors who partner with us. This enabled us to cultivate new customers and establish a foundation and structure for the next stage of growth.

Status of Music Popularization Activities

Music Schools (As of June 2019)

	Number of venues (classrooms)	Number of students
Japan (total for children and adults)	2,900	357,000
Overseas (total from over 40 countries and regions)	1,500	230,000

→ Plan to increase number of overseas students by 30% over the next three years

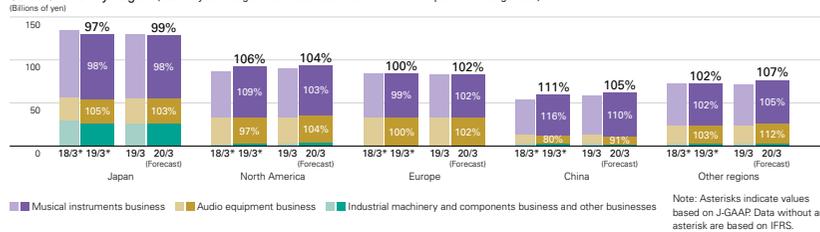
Expansion of School Project* (As of March 2019)

Countries offering the program	Total number of students
5 countries	260,000

→ Plan to achieve a cumulative total of 1 million students in seven countries over the next three years

* Project that provides opportunities for children to play musical instruments in schools with the aim of spreading musical instrument education and increasing the music-playing population (see page 71)

Sales Growth by Region (Year-on-year change on an actual basis that excludes the impact of exchange rates)



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Strategy under the New Medium-Term Management Plan

Targets for Fiscal 2022 (Based on IFRS)

Revenue: ¥470.0 billion, up 8.2% (over three-year period)

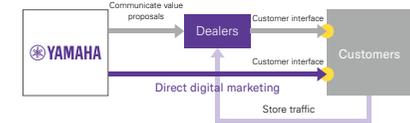
- Encouraging customers to seek out the Yamaha brand by promoting customer value
- Promoting new sales frameworks on a global basis

Analysis for Revenue Growth by Region (Musical Instruments Business and Audio Equipment Business)



Note: Figures in parentheses represent growth rate over three years. * Estimated figures at the time the new medium-term management plan was announced. Actual fiscal 2019 results: ¥434.4 billion (IFRS)

that customers seek out the Yamaha brand, we will reestablish frameworks for our communication strategy and sales structure and improve the value of our services. In these ways, we will enhance our contact points with customers.



Direct Digital Marketing

In addition to our conventional approach of promoting the value of our brand at stores, we will promote direct marketing via digital platforms. Over the three-year period of the new medium-term management plan, we will set up a structure for establishing direct ties with customers on a global basis.

As a manufacturer, efforts to communicate the value of our products and brand to customers will help us strengthen customer value. These efforts will also encourage customers to visit our stores and experience the value we offer firsthand. To ensure

Key Strategies

Key Strategy	Specific Initiatives
Improve ability to communicate brand and product value	Communicate value to customers through direct marketing Promote reforms to sales frameworks
Improve service value	Develop broader, deeper, longer ties with customers through the introduction of lifetime value (LTV) and the enhancement of product support services, etc.
Expand contact points with customers	Accelerate growth in emerging countries such as India and ASEAN by incorporating demand from the middle class, promoting e-commerce and store-based initiatives, introducing models catered to each region, and expanding the music-playing population.
Establish global management foundation	Promote global human resource management systems Build next-generation enterprise resource planning (ERP) systems

Improving Ability to Communicate Brand and Product Value

Thus far, our contact point with customers has been through our authorized retail shops, and expanding that contact point has led to the expansion of our businesses overall. Going forward, we will establish frameworks that allow us to form direct relationships with customers and promote the value of the Yamaha brand via digital platforms.

Improving Service Value

As more value is gradually being placed on the experience of using a product rather than owning one, there has been a growing number of customers who are not overly concerned with ownership. To place more emphasis on the value of lifestyles enriched by musical instruments and to form broader, deeper, and longer ties with our customers, we will continue to make proposals that cater to the life stages of each customer and strive to maximize our LTV.

Expanding Contact Points with Customers

To incorporate the new demand generated by the growing middle class in emerging countries such as India and ASEAN, we will

establish an omnichannel approach that integrates e-commerce and physical stores. We will also promote the adoption of new business models at stores to place more emphasis on experiences, in conjunction with efforts to expand our sales networks.

Initiatives in Key Emerging Markets (figures in parentheses represent the changes from fiscal 2019)

- China: Increase number of outlet stores to 2,300 (15% increase)
Increase number of piano specialty stores to 470 (two-fold increase)
- India: Increase store numbers to 500 (35% increase)
Commence in-house e-commerce initiatives and direct delivery from factories to cover the entire country

For the School Project in emerging countries, we will contribute to education-related social issues by creating opportunities for children to play musical instruments as a part of their school education. By doing so, we will create future demand.

RESEARCH AND DEVELOPMENT

By further refining and enhancing the combination of technologies and sensibilities, which represents our long-cultivated core competence, we will develop products and services that are overwhelmingly competitive and contribute to profit generation and business growth.

Koichi Morita
Operating Officer, Senior General Manager of Research & Development Division, Technology Unit



The Strengths of Yamaha's Research and Development (R&D)

We have inherited the craftsmanship capabilities and sensibilities toward sound creation that Yamaha has cultivated over its long history, which spans generations. With these capabilities and sensibilities as our foundation, we possess a deep understanding of and vast insight related to sensibilities for determining a good sound and a good sound environment. These serve as our unique strengths and enable us to differentiate ourselves from our competitors. We have established sensibility evaluation technologies as a means to effectively utilize our insight on sensibilities. Leveraging these technologies, we are striving to meld our various other technologies, such as our acoustic, digital, and electronic technologies, which in turn will enable us to offer unique products and services that cannot be imitated by competitors. Our foundation of organizational knowledge pertaining to sensibilities toward sound, which have been cultivated over our long history, and sensibility evaluation technologies serve as a major source of our competitiveness in the global market.

Review of NEXT STAGE 12

One of the four key strategies adopted under the previous medium-term management plan was to develop products with distinctive individuality. By combining the numerous unique technologies we possess, we developed and launched products with distinctive individuality and competitive products that our competitors cannot imitate. These included Venova™, a casual wind instrument that realizes a rich tone with a compact size, as well as the TransAcoustic™ Guitar, which enables brand-new musical performance experiences. The development and launch of such products contributed to our business performance growth.

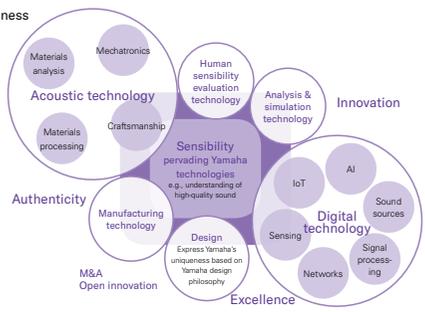
Reflecting on NEXT STAGE 12 with an emphasis on technologies, we made gradual progress with research on sensibility evaluation technologies, analysis and measurement technologies, materials technologies, and sensing technologies, all of which we focused on as major themes. In addition, we saw positive results from our product design and development activities, which contributed to our solid performance.

What Does the Combination of Technologies and Sensibilities Entail?

Yamaha's strength of combining technologies and sensibilities essentially boils down to gaining a scientific understanding on the value of sensibility centered on sound, and leveraging this understanding to commercialize products. The value of human sensibilities for determining what constitutes a good sound and a good sound environment is not something that can be represented by simple quantitative data. In addition, scientifically analyzing the appeal and value of music and incorporating these elements into products and services is also something that requires a deep understanding on the value of sensibility centered on sound. At Yamaha, we have cultivated such a scientific understanding and insight through our long history, which began with the creation of musical instruments. Drawing on this sensibility value as our core competence, we are able to provide truly unique products and services through the combination of our wide range of technologies.

Various Technologies That Serve as a Source of Competitiveness

- Acoustic technologies
 - Technologies that support acoustic musical instruments
 - Craftsmanship capabilities, materials analysis, material processing, mechatronics, etc.
- Digital technologies
 - Electronic technologies, best represented by our digital signal processing technologies
 - Sound source, signal processing, networks, sensing, IoT, AI, etc.
- Sensibility evaluation technologies
 - Evaluation technologies pertaining to human recognition and sensibilities toward sound
- Analysis and simulation technologies
 - Analysis and simulation technologies related to sound, audio, music, etc.
- Manufacturing technologies
 - Technologies pertaining to production processes, such as manufacturing methods and RPA



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R&D Strategies under the New Medium-Term Management Plan

Creating New Value through the Combination of Technologies and Sensibilities—Enhancing Added Value with the Pursuit of Authenticity and Innovation

- Strengthen technologies in the fields of materials, elemental components, and AI
- Establish and innovate design and development methods
- Develop elemental technologies that extensively provide new value to customers on a continuous basis
- Develop technologies that contribute to sustainability and reduce environmental burden

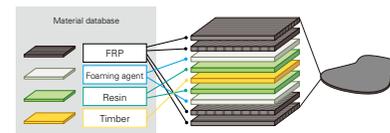
Reaching New Heights of Competitiveness by Enhancing Our Strengths in the Fields of Materials, Elemental Components, and AI

By incorporating innovative technologies in the fields of cutting-edge materials, elemental components, and AI, we will acquire an overwhelming level of competitiveness that will allow us to win out over the competition.

Fields of Materials and Elemental Components

In the fields of materials and elemental components, we will systematically organize our materials technologies (development and processing), which are currently spread across the Company, and establish platforms for sharing technologies that leverage our accumulated organizational knowledge on a Companywide basis. In this way, we will be able to promote more sophisticated and efficient R&D activities through the combination of technologies and sensibilities, which has become implicit knowledge within Yamaha.

Material Development that Leverages Our Databases as Platforms



Field of AI

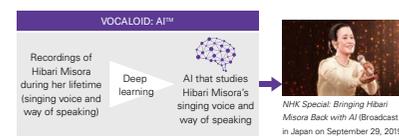
By integrating our long-cultivated technologies and sensibilities with AI technologies, we will pursue the development of products and services that are uniquely Yamaha.

For example, we are working to apply the following improvement functions to a wide range of products and services:

- Personalization of musical accompaniment and lessons
- Automated / assisted PA operation
- Synthesized singing voice technologies, production of musical instrument sounds

Examples of Leveraging AI Technologies

VOCALOID: AI™ faithfully reproduces the singing of legendary Japanese vocalist Hibari Misora to live perform a new song

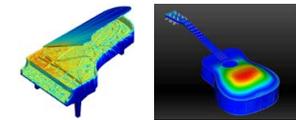


Establishing and Innovating Design and Development Methods

We will work to scientifically analyze and systematically organize design methods in order to promote more sophisticated and efficient R&D activities. By logically systematizing and standardizing elemental technologies such as measurement, analysis, simulation, and sensibility evaluation technologies, we will strive to establish and innovate our design methods on a Companywide level.

Additionally, we will dramatically enhance the speed of our development by utilizing AI analysis and simulation.

Rendering of Audio Analysis

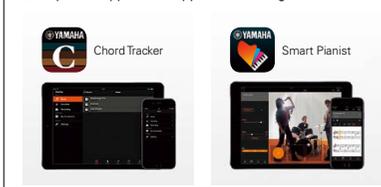


Developing Elemental Technologies That Extensively Provide New Value to Customers on a Continuous Basis

We will focus our efforts on developing elemental technologies that support the diverse ways of enjoying sound, music, and musical instruments.

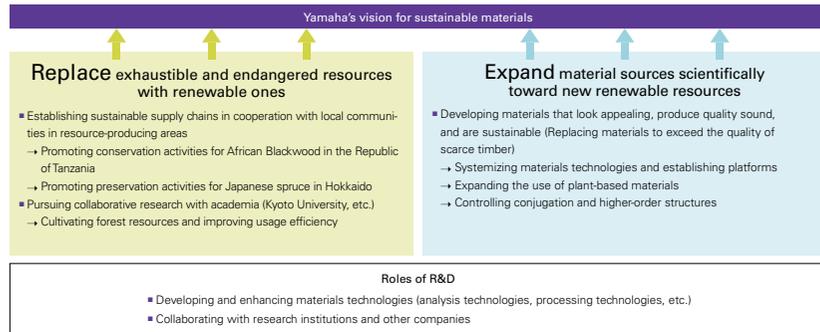
For example, by providing performance support through AI to allow even beginners to enjoy playing a musical instrument in a simplified manner, we are able to lower the hurdle for people to begin learning a musical instrument. In addition, through musical notation technologies, we can make it possible for people to enjoy the music they like at a level suited to individual playing skills. Going forward, we will refine our unique, cutting-edge sensibility evaluation technologies so that we can form close ties with all customers in a manner that caters to their age, experience, nationality, culture, and other characteristics.

Examples of Apps That Support Performing Artists



RESEARCH AND DEVELOPMENT

Approach to Sustainable Materials from Two Perspectives



Efforts to Promote Sustainability within Our R&D Activities

In tandem with the aforementioned strategies pertaining to cutting-edge technologies, we are also actively engaging in efforts to promote sustainability. Cultural value is something that is encapsulated in human nature. We therefore believe it is our job to ensure the sustainability of music culture. Music culture is a valuable asset of humankind, and it is our hope that future generations are able to enjoy music culture in the form of musical instruments and audio equipment. We believe that R&D will play a significant role amid our earnest quest to determine how we can make music culture sustainable.

Timber is essentially a sustainable resource. In the future, rather than refraining from and moving beyond the use of timber, it is essential that we use timber in an appropriate manner to ensure that it remains sustainable. As a company with a base of materials technologies, we believe that we can play a major role in establishing supply chains that allow for the creation of musical instruments with quality sound. Researching what type of timber to use and the ideal ways to use it is a means for us to discover new solutions. We have already concluded a comprehensive research agreement with Kyoto University, and we will pursue further collaboration with outside research institutions and companies over the medium to long term as we move forward with the development of new sustainable materials and other endeavors.

TOPICS

Yamaha's Innovation Center—A Base for Creating New Innovations

To further refine our core technologies and spur new innovations, we established the Innovation Center, an R&D base with state-of-the-art research and testing equipment, at our headquarters. The Innovation Center gathers together the approximately 2,500 engineers and engineers of our Research & Development Division, thereby accelerating the development of products and technologies in a manner that goes beyond the boundaries of our business domains.



Corporate Museum Innovation Road

On the ground floor of the new R&D building, we established the corporate museum Innovation Road, which displays the history of Yamaha's product creation. In addition to audio and visual guides explaining products and services that embody Yamaha's unique nature, Innovation Road enables visitors to experience—through sight, sound, and touch—the path Yamaha has followed in pursuing challenges from the past to the present as well as into the future.



Laboratories

The laboratories in the Innovation Center have been installed with the latest equipment for performing technological evaluations of prototypes as well as sensory evaluations. These laboratories also include a variety of studios, rooms for testing out musical instruments, an anechoic chamber, a reverberation chamber, and a vibration laboratory.

(Left) Anechoic chamber: A special measurement room in which sound absorption wedges have been installed on the surface of walls and echoes within the room have been reduced as much as possible. (Right) Reverberation chamber: A room used to measure the absorption coefficient of building interior finishing materials as well as sound source audio power levels.



Developing Products and Technologies with Distinctive Individuality

Musical Instruments

TransAcoustic™ Piano



By having a transducer convert digital sounds into vibrations and transmit those vibrations to the soundboard, the TransAcoustic™ Piano's soundboard takes on the role of a speaker to produce distinctly rich sounds.

Picture: TransAcoustic™ Piano C3X-TA2

TransAcoustic™ Guitar



An actuator installed in the TransAcoustic™ Guitar makes it possible to generate authentic reverb and chorus sounds from inside the guitar body without having to connect to an external amp or speaker.

Picture: TransAcoustic™ Guitar CG-TA

Casual Wind Instrument Venova™



The casual wind instrument Venova™ is a brand-new kind of wind instrument in a compact size that leverages innovative technologies to produce the colorful tones of a saxophone.

Picture: Alto Venova™ YVS-120 and Venova™ YVS-100

Audio Equipment

RIVAGE™ Digital Mixing System



RIVAGE™ is a next-generation flagship digital mixing console with thoroughly enhanced features such as state-of-the-art sound quality, operability, functionality, reliability, and configurability.

Virtual Circuitry Modeling Technology



In order to reproduce the deep sounds of analog devices using our DSP (digital sound field processor) technology, we developed virtual circuitry modeling (VCM) technology that accurately models element levels in analog circuits at a world-class level. This VCM technology has been installed in such products as our PA equipment, digital musical instruments, and guitar amps.

Hi-Fi Speaker Diaphragms Realizing Consistent Tones at All Bandwidths



We have gathered together next-generation speaker technologies. With a passion for recreating pleasant audio sensations and precise sounds, we have installed newly developed diaphragm materials, which realize sound speeds that rival beryllium, in all of our speaker units, thereby realizing consistent tones at all bandwidths.

TOPICS

Yamaha Instruments Registered as Japan's Leading Historical Technologies by the National Museum of Nature and Science

In September 2019, the National Museum of Nature and Science, an independent administrative institution, registered Yamaha's D-1 electronic organ, DX-7 digital synthesizer, and YM3526 and YMU757 FM sound generator LSIs as Japan's Leading Historical Technologies (nickname: Technological Heritage). In addition to being the first time Yamaha's technologies were registered as Technological Heritage, this also marked the first time that musical instruments and LSIs achieved registration.

D-1 Electronic Organ (Electone™)

An electronic organ that became the starting point for digital musical instrument technology and music education in Japan
First appearance: 1959
Year of production: 1959

DX-7 Digital Synthesizer

A digital synthesizer installed with FM sound generators that produced rich, expressive sounds that changed the music scene at the time
First appearance: 1983
Year of production: 1983

YM3526 and YMU757 FM Sound Generator LSIs

FM sound generator chips that brought high-quality melodic sounds to multimedia devices and cellular phones
(YM3526)
First appearance: 1984
Year of production: 1986
(YMU757)
First appearance: 1999
Year of production: 2000



D-1



DX7



YM3526



YMU757

RESEARCH AND DEVELOPMENT

Intellectual Property

We are advancing a global intellectual property strategy and working to create, protect, manage, and utilize intellectual property. In these ways, we are taking steps to maintain and enhance corporate value and brand value.

Yamaha founder Torakusu Yamaha himself made many inventions and acquired patents for these inventions. Since the Company's founding, in coordination with our business activities, we have taken steps to create, protect, manage, and utilize intellectual property. Over many years of R&D and business activities, the Company has accumulated a range of intellectual property, such as ideas, designs, trademarks, and copyright-protected works. Through the use of patents, design rights, trademark rights, copyrights, etc., we will continue to appropriately protect, manage, and utilize this intellectual property, thereby contributing to the Company's business operations. Moreover, to maintain and enhance brand value, we are taking steps to acquire intellectual property rights in a variety of fields in countries around the world. We are also aggressively implementing countermeasures to counterfeit products.

Patents

To differentiate itself from its competitors, gain a business advantage, ensure greater business flexibility, and enable licensing to third parties, Yamaha has formulated patent strategies tailored to its operations in specific business segments. Every year, we conduct evaluations pertaining to such factors as our current patent utilization status and the future potential of patent utilization with the aim of rigorously distinguishing and organizing intellectual properties that contribute to our product development and enhance our competitiveness. By optimizing the number of patents we hold and the content of these patents, we are working to leverage our intellectual properties in a logical manner. As of March 31, 2019, the Group possessed approximately 2,600 patents in Japan and roughly 3,500 patents overseas, centered on the United States, Europe, and China.

Trademark Rights

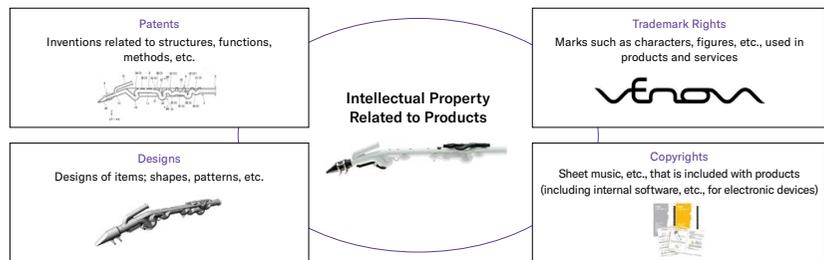
In 1986, Yamaha formulated management regulations for the Yamaha brand, and we have established Companywide management committees. We are working to sustain and enhance brand value by taking steps to realize the proper use of trademarks. As one part of those efforts, Yamaha has widely trademarked its brand in almost every part of the world. Furthermore, for product and service brands, which are positioned as sub-brands, the Company works to appropriately conduct preliminary investigations into product and service names and to acquire trademarks.

Designs

Yamaha views design as a critical element in setting its products apart from other offerings in the market, and consequently the Company makes every effort to properly safeguard and utilize these assets. As one part of those initiatives, Yamaha has strengthened its efforts to acquire design rights in countries and regions where there are frequent issues with counterfeit products. As of March 31, 2019, the Yamaha Group held a total of approximately 1,260 design rights, roughly 460 in Japan and 800 overseas.

Copyrights

In addition to industrial property rights, such as patents, designs, and trademarks, the Yamaha Group produces numerous copyright-protected works, primarily in the fields of sound and music. Music-related copyrights are of particular importance to Yamaha in terms of its overall intellectual property policy. The Company takes steps to ensure their proper management and use, including undertaking legal action when necessary.



Anti-Counterfeiting Measures

In recent years, the number of cases of unauthorized third parties manufacturing and selling products under the Yamaha brand or reproducing counterfeit Yamaha product designs has been increasing. In response, we are taking steps to eliminate economic disadvantages and secure safety for consumers, and in turn to maintain trust in the Yamaha brand. To that end, we continue to monitor the use of intellectual property rights and implement aggressive countermeasures through

administrative and legal routes. At the same time, we are also focusing on countermeasures to prevent counterfeit product sales through the Internet and social media. Going forward, Yamaha will implement aggressive legal measures, including lawsuits, to protect the Company's brands, consumer trust in the Yamaha brand, and the Company's businesses.

BRANDING

In January 2019, we established the brand promise of Make Waves, and have since been communicating this promise on a global basis. With the new medium-term management plan, we will promote the value of the Yamaha brand through our brand promise and develop customer interfaces with a focus on digital marketing. In these ways, we will move forward with efforts aimed at improving our brand value.

Hiroko Ohmura
Operating Officer, Senior General Manager of Marketing Division,
Brand Development Unit



Vision of the Brand Development Unit

To realize our management vision of "becoming an indispensable, brilliantly individual company," we will create higher quality customer experiences and establish an ideal brand image that can be communicated consistently on a global scale.

Promoting the Value of Our Brand through Our Brand Promise

Promise to Customers to Make Yamaha an Indispensable Company

The starting point of our full-scale brand strategy was the previous medium-term management plan, under which we adopted the goal of increasing our brand power. With the establishment of our new brand promise Make Waves in January 2019, we made a promise to encourage our customers' passions and help them take a step forward to express their individuality, emotion, and creativity. Going forward, we will work to strengthen our proposal-making capabilities so that we can create experiences for customers to feel enthusiastic excitement.

Fostering a Brand Image by Strengthening Contact Points

Despite being a brand that is widely well-known and has received a certain level of praise from existing customers, we have not been able to sufficiently promote the value our brand offers to potential customers. To address this brand-related issue, we will increase the number of opportunities for more customers to come in contact with our brand from both a digital and physical perspective. We will offer our customers an easy-to-understand brand story that communicates how our products and services can enrich and invigorate people's lifestyles. Through these efforts, we will take steps to foster a consistent brand image.

Internal Branding

To create a robust brand, the active participation of our employees is essential. To that end, we are holding global workshops to discuss how we can convey the value of our brand to customers, centered on our brand promise. We are also hosting international conferences where we present the accomplishments of brand-related activities in each country. Through these means, we are creating opportunities for our employees to consider the ideal image for our brand on their own and act accordingly. This process has helped to significantly improve employee awareness and morale.

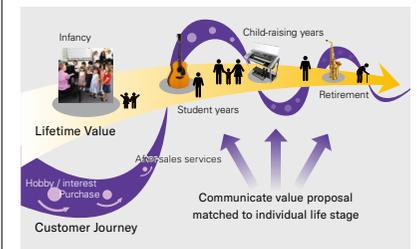


"I'm a HERO Program"—An initiative to support the resolution of social issues through music in Colombia

Creating Frameworks to Form Ties with Customers Improving Lifetime Value (LTV)

Today, with the overabundance of information available to customers, it is becoming more difficult to communicate a brand message. At the same time, there is a greater demand for high-quality services that suit customer needs. In light of this situation, we are working to build a customer data platform to analyze the important information and behavioral history of registered members in our database. This in turn will allow us to offer proposals optimized for each customer. Going forward, we will aim to realize even more effective communication with a view to improving our LTV. At the same time, we will promote the value that our brand offers in a manner that caters to the individual life stages of our customers.

Contribute to Enhanced Lifetime Value



DESIGN

Yamaha has always placed emphasis on design. In 1963, we established an in-house organization dedicated to design, which has since helped us build the Yamaha brand. In recent years, we have expanded the area of operation for this in-house organization, working to design various contact points with customers with the aim of enhancing our brand value.

Manabu Kawada
General Manager of Design Laboratory,
Brand Development Unit



The Five Elements of Our Design Philosophy (Formulated in 1987)

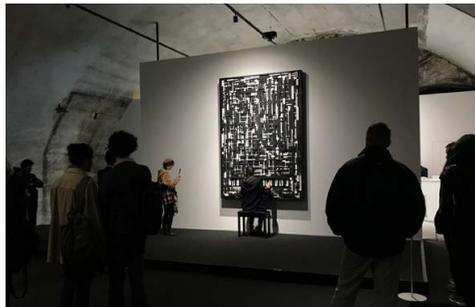
<p>INTEGRITY Design that respects the essence of the object</p>	<p>INNOVATIVE Creative design</p>	<p>AESTHETIC Beautiful design</p>	<p>UNOBTRUSIVE Restrained design</p>	<p>SOCIAL RESPONSIBILITY Design that meets the needs of today's society</p>
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Taking on Challenges at Milan Design Week 2019

A Training Ground Where Brilliantly Individual Designers Voice Their Opinions and Deepen Their Thought Processes

Yamaha held an exhibition at Milan Design Week 2019, one of the world's largest design-related events, which was held in Milan, Italy from April 9 to April 14, 2019. We have participated in the event four times in the past from 2005 to 2008, presenting pieces created through our unique design ideas. Our most recent exhibition marked the first time we have participated in Milan Design Week in 11 years. Titled "pulse," our exhibit featured four sound-related pieces and also included presentations by our designers regarding their investigations on how design can make waves in people's hearts.

By taking on challenges that differ from our day-to-day product design activities, the purpose behind holding this exhibition was to have our designers communicate Yamaha's unique worldview as well as the value systems that they themselves cherish. We also held this exhibit so that our designers could witness firsthand reactions from industry specialists and visitors from around the world when viewing Yamaha's designs. In these ways, the exhibit helped our designers deepen their personal understanding on design philosophy and better define their own identity.



Above: Entrance to the Yamaha exhibit hall
Below and left: Yamaha's exhibition pieces.
The piece on the left is titled "Pianissimo Fortissimo," a wall-mounted piece that can be touched and played and uses grand pianos as its motif.

CSP Series Clavinova™ Digital Piano

By eliminating electronic buttons from the instrument, the CSP Series Clavinova™ digital piano achieves the appearance and playability of an upright piano. The music stand of the CSP Series Clavinova™ has been placed at the player's fingertips for improved visibility during performance and ease of set-up so to be better used with a connected tablet or other smart device. The music stand's height, angle, and distance have been designed in a way that minimizes interference during performance.

Red Dot Award: Product Design 2019 (Germany)



VKB-100 VOCALOID™ Keyboard

The VKB-100 VOCALOID™ keyboard is a lightweight, slim, over-the-shoulder keyboard that was designed so that people can play the instrument while standing and moving with it close to their bodies. This design was chosen in consideration of the various scenarios in which people could use this instrument, such as when singing Karaoke. The grip section has purposely been set at an angle to the playing surface so that the player's fingers are guided naturally to the home position, and the area that the fingers strike when sliding has been flattened for improved playability. The elimination of any unnecessary decorations and functionalities has produced a pure shape that acts as a canvas upon which VOCALOID characters can be projected, a perfect match for the product concept.

2018 Good Design Award's GOOD DESIGN BEST-100

YAMAHA'S DESIGN

Supporting Yamaha's Growth by Working to Enhance Our Brand Value from the Perspective of Design



STORIA™ Acoustic Guitar

The STORIA™ acoustic guitar was created for millennials, who value connections and empathy with other people based on their own unique style. The design makes it easy to pick up and play, thereby making guitars a closer part of people's lives. To that end, the guitar pursues a beautiful, charming appearance and a shape that makes it easy to play. With its inner colors, uniform metal parts, and other features, the STORIA™ acoustic guitar was crafted with attention to detail.

GOOD DESIGN AWARD 2019

WXC-50 Wireless Streaming Amplifiers

The WXC-50 wireless streaming amplifiers utilize a prominent physical volume knob to represent both a new take on network audio and the ubiquitous identity of an audio products. Based on the product concept of simple and flexible, the WXC-50 pursues a retro-modern appearance, with the brushed surfaces of everything but the knob giving it a form that is familiar, yet subtle.

German Design Award 2019 Winner (Germany)



YVC-200 Portable Speakerphone

From the initial stage of making sketches for the design of the YVC-200 unified communication speakerphone, Yamaha designers made proposals for a detailed design that achieves a balance between a compact size and high sound quality. Paying particular attention to such aspects as the way the buttons light up and the quality of sounds produced when operating the device, Yamaha placed emphasis on creating a charming shape that expresses the loveliness of sound. By doing so, the YVC-200 realizes a subtle design that enables it to naturally blend in to the atmosphere of a room.

