

Interview with General Manager of the Corporate Technology Division

Technological Development for Solving Social Issues



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What is your policies regarding technological development?

Our vision for the future is based on our Group Vision 2030, in which we aim to achieve "Trustworthy Solutions for the Future." In line with this, we will continue to provide innovative solutions in a timely manner to an ever-changing society. Based on this vision, with the objective of solving various social issues, we are making proactive efforts toward developing technologies to expand our business into high value-added fields, such as market development and service-based businesses .

What is the role of the Corporate Technology Division?

The Corporate Technology Division is the research and development division of our headquarters. The Corporate Technology Division and business segments have integrated to develop products and services. Specialists in the Corporate Technology Division collaborate with engineers in the business segments starting from the planning stage to ensure the overall optimization of issues that involve contradicting factors. By matrix-type based operations like this, we are able to apply the knowledge we

gained from past projects to other projects, and produce synergistic effects as a comprehensive heavy industry manufacturer that transcends business boundaries, such as through the development of motorcycles that integrate gas turbine technologies.

Furthermore, by envisioning the near future of our business segments, we propose products and services that solve the problems surrounding society and create technologies that will support future generations.

What are some business sectors you are focusing on for the future?

We are focusing on market development for new fields in the robotics business as a business opportunity to address social issues such as the declining birthrate and aging population, as well as the shrinking working population. In order to address the problem of our rapidly aging society and to respond to its needs, we will develop medical robots in cooperation with other companies to provide advanced medical care to as many patients as possible. To address the problem surrounding the decline in the working population, we are developing technologies to enable the use of robots in a wide range of fields, such as duAro, a robot that is capable of working in collaboration with humans, and Successor, a robot that learns and reproduces human skills.

In addition, we are currently working to provide services that offer added value by optimizing operations and maintenance tasks as our initial efforts to develop service-based businesses. Some examples of these efforts include our remote monitoring service for railroad tracks, which is currently under development for commercialization, and our remote monitoring system for gas turbines and gas engines. By combining hardware knowledge and digital

technology, we aim to solve some of the issues we will face, such as labor shortages and environmental problems.

Furthermore, we are focusing our strengths on promoting the creation of a hydrogen-based society as a new business opportunity to solve the two problems of global warming and resource depletion in the future.

What is your efforts to achieve a hydrogen-based society?

Utilizing our proprietary cryogenic technology, which makes large-volume transportation of hydrogen possible by liquefying hydrogen, we began leading the way in efforts to achieve a hydrogen-based society about 10 years ago, ahead of our competitors. Specifically, we have been developing technologies and products that are used in each step along the hydrogen energy supply chain, which include production, transportation, storage, and utilization. To achieve a hydrogen-based society, we also need an environment where hydrogen energy can be widely used by everyone. To achieve this, it is important to establish standards and rules for handling hydrogen, and we are the leading company involved in the development of these standards and rules. We believe that establishing these rules will make it easier to use hydrogen energy around the world, and will also create opportunities and markets for our products and services to spread worldwide.

Closing comments

We believe that our various technological developments aimed at solving social issues will contribute to the sustainable management of our company. We will continue to make the utmost efforts in achieving our goals.