

Supply Chain



Yasuyuki Ishii

Director of the Board,
Senior Executive Officer
in Charge of SCM Strategy

Kirin Group Supply Chain Supporting Sustained Growth

A high-quality, efficient supply chain foundation is indispensable for the stable operation of the Group's businesses and the sustained creation of value.

In the Japan Integrated Beverages Business, the procurement, production, and logistics departments work closely together to provide consumers with a steady supply of safe, secure products at low cost. In addition to the technologies and know-how that we have cultivated, we are also aggressively introducing new technologies and facilities. In this way, we are working to create new value. In particular, in the midst of a shift toward consumers enjoying products in individual ways, it has become important to establish a supply chain that realizes the provision of a diverse array of products and services.

In addition, in recent years the operating environment in the pharmaceutical industry has changed dramatically. To respond to the Japanese government's measures to control healthcare expenditures, the reevaluation of production costs has become a necessity. Kyowa Hakko Kirin will be able to achieve higher efficiency and improved GMP* as well as improve cost competitiveness through a reorganization of its production and facilities, which is currently under way. In addition, Kyowa Hakko Kirin will make continued efforts to improve production technologies while maintaining and increasing its competitive advantage.

* Good Manufacturing Practice (criteria for manufacturing and quality control management of pharmaceutical products, etc.)

The Superiority of Kirin's Supply Chain Foundation

Kirin Brewery's Production Technologies

Technology for the small-lot production of a wide range of products is one of the strengths of Kirin Brewery's production technologies. Consumer preferences have diversified, and there is an increased need for beers that enable greater enjoyment of individuality by reflecting varying tastes and different ideas from brewers. Through the development and introduction of new technology, Kirin Brewery has established a system that can efficiently produce a wide range of products in just the amounts that are needed. In this way, we have been able to produce *47 Todofuken no Ichiban Shibori* products among nine plants and a variety of craft beers including *Yona Yona Ale* and *Brooklyn Lager*.

In addition, in 2014 we established Kirin Innovation Factory Yokohama, which has small-scale, diverse brewing facilities, at the Yokohama Plant. In 2015, in Daikanyama, Tokyo, we opened SPRING VALLEY BREWERY TOKYO, which combines a brewery and a restaurant. In fall 2017, we plan to open SPRING VALLEY BREWERY KYOTO. Through these facilities, we will contribute to the creation of diverse value that is not limited to existing beers, such as craft beers and cider.

Kyowa Hakko Kirin's Production Technology

By combining the unique techniques and know-how developed to date with advanced technology, Kyowa Hakko Kirin has established a production process that has world-class quality and productivity. At the Bio Process Research and Development Laboratories and the CMC R&D Center, Kyowa Hakko Kirin is developing production processes and drug formulation technologies, and by offering products that incorporate various developed technologies, the company continues to provide new value to people around the world.



Engineering Technologies

Engineering technologies that support the production foundation are another strength that supports the Kirin Group supply chain. Kirin Engineering is a company that handles the construction of plants and the installation, expansion, and repair of production facilities for the Group, principally for Kirin Brewery, Kirin Beverage, and Kyowa Hakko Kirin. Kirin Engineering has special strengths in food and pharmaceutical plants and is also implementing business initiatives outside the Group in the

food, beverage, pharmaceutical, and biochemical industries.

Kirin Engineering has developed a workforce of engineers in a variety of fields. These engineers have acquired experience and technologies in plant construction and repair over many years. The company is also participating in large-scale construction projects by Group companies overseas, such as Lion and Myanmar Brewery. In this way, Kirin Engineering is contributing to the efficient, effective utilization of capital expenditures.

Example Initiatives to Increase Group Competitiveness

Reducing costs across the supply chain is an important issue in increasing the Group's competitiveness.

Procurement departments are working to reduce costs by leveraging the Group's economies of scale. We have consolidated the procurement functions of such companies as Kirin Brewery, Kirin Beverage, and Mercian, and we are working to reduce costs and increase efficiency as well as to implement joint procurement activities with the Kyowa Hakko Kirin Group. In addition, in collaboration with Lion and Myanmar Brewery, we are conducting joint procurement of malt, which is a primary ingredient of beer, and other commonly used items, and implementing the mutual sharing of best practices.

In production departments, we are advancing cost reductions through the introduction of new technologies. Kirin Beverage was a leader in making its own PET bottles and introduced Japan's first in-line PET bottle aseptic blow-fill equipment. In this way, we achieved reductions in production costs through mass production. Moreover, steps were taken to conduct in-house manufacturing of the preform used to form PET bottles, and we achieved an industry-first with the introduction of preform molding machinery on a beverage production line.

In logistics departments, through such initiatives as joint delivery with other companies in the same business and the implementation of a modal shift from long-distance truck transport to railway container transport, we are working to reduce transport costs and emissions of carbon dioxide and to address a shortage of truck drivers.



Initiatives for Further Growth

At Kirin Company, to continue working together with suppliers, who are our business partners, in order to create diverse value through business activities that address social demands and expectations, we formulated the "Kirin Group Supplier CSR Guidelines" and are working to implement CSR procurement. We establish a shared understanding of items that the Group's suppliers must comply with in such areas as respect for compliance and humanity, the environment, safety and security, alcohol-related problems, and social contribution. Major suppliers are asked to submit a "Supplier CSR Confirmation," and we are aiming for a response rate of 100% for suppliers of ingredients and packaging materials. Moreover, we conduct a

supplier satisfaction survey each year. Moving forward, we will strive to implement open, fair transactions through two-way communication with suppliers.

In the future, we will take steps to further bolster CSR procurement in cooperation with suppliers, such as nurturing domestic hops farmers, expanding Rainforest Alliance certification^{*1} and Forest Stewardship Council (FSC) certification,^{*2} and utilizing green electricity.

^{*1} International certification system that audits farms and certifies that they are sustainable in all of the areas of environmental protection, social equity, and economic viability

^{*2} Certification that wood and paper products are produced in a way that shows consideration for environmental conservation of forests, addresses the interests of the regional communities where the forests are located, and is economically sustainable