Product/Development Strategies

We will concentrate on areas of growth and create valuable products that will be selected by markets worldwide.

Tsutomu Watanabe
Corporate Officers
General Division Manager, Development & Production Division

In the fiscal year ended December 31, 2023, we were embroiled in a challenging business environment in which raw material and energy prices were soaring. Amidst these conditions, while implementing a host of measures in the areas of development, procurement, and manufacturing, we introduced a total of 19 new models (series), including the BF Series tractor and Frontier Master (FM) Series combine harvester—both in the volume zone—to the domestic and overseas markets.

In our management strategy, we have been promoting initiatives to concentrate resources on regions and products where we are strong and on growth markets, as well as structural reforms. And, under Project Z, we will steadily put these initiatives into practice with a sense of urgency. With regard to fundamental structural reforms, we will promote the "Optimize production" by integrating the management of production sites, and of development by selecting and concentrating development models and reforming development methods. This will help us to build a structure that enables us to concentrate management resources on growth markets. As for our product strategy, we will focus on the fields of large, cutting-edge, environment, and dry fields—where significant growth is expected—and create highly competitive, valuable products that will aid our customers in solving their problems.

Business policy

Product development

Focus on regions, products, and growth markets, which are our strength

Japan	● Response to large-scale farming
Overseas	● Response to brand expansion
Common	● Safety and environmental responses ● Frontrunner development

Structural reforms through establishment of an optimal production system

- Improve quality and earning power through selection and concentration
- Improve productivity through optimal allocation of human resources and facilities
- Strengthen the production system on a global basis

Measures to realize fundamental structural reforms and growth strategies

Fundamental structural reforms:

- "Optimize production" (optimal allocation of machine types produced and production bases, capital investment for the future, environmental responses, and efficiency improvement)
- "Optimize development" (concentration of development resources, and efficiency improvement through the use of shared design)

Growth strategies:

- Concentration of development capability in the priority areas of the growth markets (automation, laborsaving, and mitigation of environmental burden)

Research and development policy

We conduct research and development in line with the four spirits as the engineer, upholding the mission of "contributing to society through agricultural machinery."

Spirits as the engineer

- Market ideas
- Exert all technical potential
- Always being one step ahead of the competitors
- Be totally dedicated to product philosophy

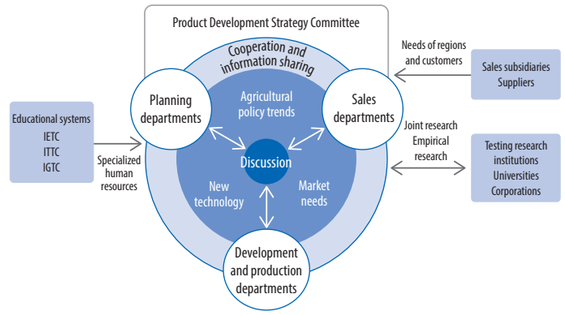
The Company's characteristics in research and development, production

- Maximized product value based on technological capabilities and intellectual property strategies
- Brand power of combine harvester "JAPAN" and rice transplanter "Sanae"
- Joint research and development in collaboration with research institutions, universities, etc.
- Strengthened collaboration with Dream Agricultural Research Institute (initiatives for smart agriculture that utilize advanced technologies)
- Development of specialized human resources in research and development and at production sites

Research and development system

We have built a research and development system that displays collective power through mutual collaboration among the planning, development, production, and sales departments, and manufacture products that meet the market needs of each country and region. The "Product Development Strategy Committee" regularly discusses the direction with an eye on medium-term solution of social issues from the recent business perspective, and determines basic policies and plans for product strategies and research and development. For advanced technologies, a priority area, the "Advanced Technology Strategic Committee" narrows down themes to be addressed and shares technological trends, takes a deep dive into issues, and discusses business development that leverages the Company's strengths.

The Iseki Basic Engineering Training Center (IETC), which is a training facility specialized in designing technologies, dedicates itself to foster human resources to promote frontrunner development such as application of robotic technology and electrification. In addition, the Company creates new value by integrating external help with the Company's core technologies in various forms such as joint research and open innovations with universities and corporations.



Joint development projects in FY2023

Research institutions	9 themes
Universities	1 theme

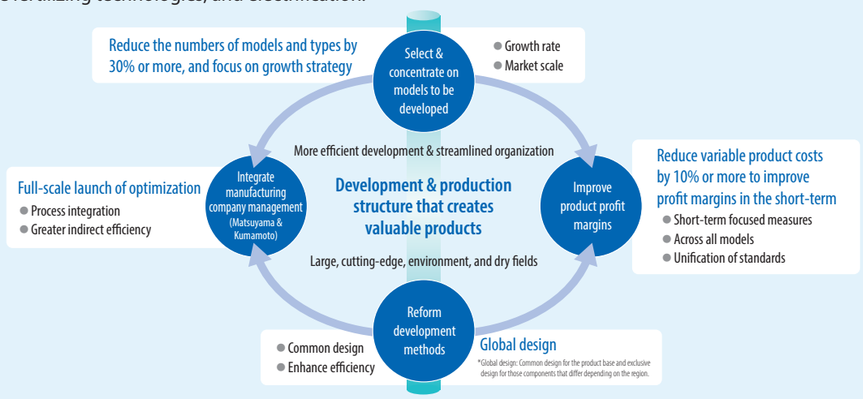
Measures to realize fundamental structural reforms and growth strategies Project Z

"Optimize development"

The Company will concentrate resources in the growth strategies for "large, cutting-edge, environment, and dry fields" by reducing the machine types (series) and models to be developed by at least 30% through selection and concentration. In addition, even if products have different targeted markets, technologies that support them are in common in many cases. Therefore, we will promote development optimization by reforming the develop methods that include global design in which we apply shared design for the product body, and then design parts specifically to meet the needs of different regions. Through effective and efficient utilization of investment in research and development centered around the aforementioned initiatives, we will work to improve the product margin in the in the near future with the aim of reducing product variable expenses by at least 10%, and also strive to realize production optimization.

"Realize automation, laborsaving, and lower environmental burden in agricultural and landscaping work"

The Company will narrow down priority areas based on growth potential, etc. of markets and concentrate management resources in the areas where its strengths can be leveraged. We will focus on research and development particularly on technologies related to mitigation of environmental burden such as advanced technologies for automation, laborsaving, etc., variable fertilizing technologies, and electrification.



Product/Development Strategies

Production system

We have five domestic production bases (Matsuyama, Kumamoto, Niigata, Shigenobu and Minamiyoshida) and three overseas bases (Indonesia and two venture factories in China). The high-mix, low-volume production system in Japan enables us to promptly respond to diverse needs; on the other hand, each product is manufactured at a different production base, and it is important to realize production standardization. Therefore, we work on various initiatives to establish an optimal production system.

We are working to reduce fixed costs by promoting external production of parts and processes previously manufactured in-house, while continuing in-house production of core technologies that have high added value and require the transmission of skills, and accumulating know-how. We have shifted human resources to higher value-added operations by improving the productivity and enhancing and stabilizing the quality through introduction of facilities that utilize robotic and IT technologies, while responding to labor shortage through laborsaving and ensuring the safety of workers. We have horizontally deployed systems at other bases for which we have confirmed effectiveness of their introduction, leading to overall improvement of productivity. In addition, we stopped in-house development and production of dryers in December 2022 and switched to purchasing and selling.

With an eye on the further expansion of the Company's overseas business, we are promoting strengthening of systems and production transfer at PT ISEKI INDONESIA, our global production base. Production of riding lawn mowers for Europe, which was previously produced at ISEKI-Matsuyama MFG. Co., Ltd. has been transferred to PT ISEKI INDONESIA since July 2022, realizing cost reduction. Furthermore, we expanded PT ISEKI INDONESIA by constructing a new factory building in 2023 to increase its production capacity to 22,000 units, whereby we established a system that enables production at lower cost. The number of units produced at PT ISEKI INDONESIA in 2023 and 2024 was temporarily decreased due to production adjustments conducted in response to the trend in the North American market. However, we expect that the number will increase in the future as we further transfer production of products currently manufactured in Japan and promote growth strategies of the overseas business.

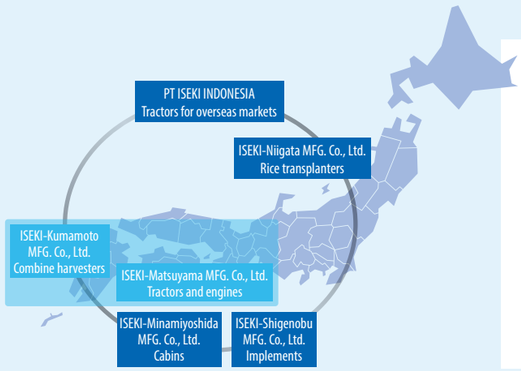
PT ISEKI INDONESIA with strengthened production capacity

We will accelerate our establishment of an optimal production system on a global basis and improve profitability.

Measures to realize fundamental structural reforms and growth strategies Project Z

"Optimize production"

While we have been promoting the establishment of an optimal production system for domestic and overseas production sites as a priority measure to enhance profitability, we will further accelerate the effort through Project Z. In July 2024, the Company plans management integration through reorganization of ISEKI-Matsuyama MFG. Co., Ltd., our mother factory which manufactures tractors and engines, and ISEKI-Kumamoto MFG. Co., Ltd. which manufactures combine harvesters. Optimal allocation of machine types and production bases and capital investment for the future are included in the measures under the reform. The Company will consolidate processes that are redundant among production bases, realize reduction of stock and fixed costs through consolidation of human resources, investments, and systems, and strengthen a structure by optimizing production and assets. In addition, we will strengthen the system at PT ISEKI INDONESIA to increase production and accelerate global expansion.



Basic policy

- "Create robustly-structured manufacturing companies"
- Integrate human resources, investment & systems to generate synergy through greater operational efficiency and cost reductions
  - Enhance production efficiency
  - Effectively utilize human resources
  - Enhance asset efficiency
  - Reduce inventories
  - Reduce fixed costs
- Establish a structure for expanding production at PT ISEKI INDONESIA

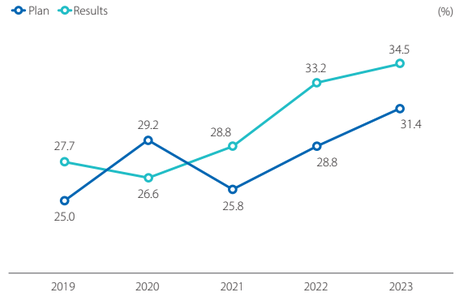
Procurement: Strengthening supply chain management

We have strengthened our initiatives for optimal procurement based on central purchasing by integrating the Purchasing Department of Head Office and procurement departments of manufacturing subsidiaries. While overseas procurement including indirect purchasing is increasing every year, exceeding 30% in FY2023, the Company promotes optimal procurement by considering returning procurement to Japan in regard to geopolitical risks such as conflicts, terrorism, and other problems, and preparing solution plans for each region in regard to foreign exchange risks caused by the weaker yen.

The Company entered into a technical and business alliance agreement with TAFE, which boasts the second largest share in India. In order to strengthen price competitiveness of our products, the Company started to use parts produced by TAFE in our tractors, and will adopt them to other machine types in the future.

By continuing to strengthen communication with suppliers, the Company aims to avoid production loss and line stoppage risks, conduct stable production, and procure parts of good quality at fair prices.

Percentage of procurement from overseas suppliers



TOPICS

Automation

Development of industry's first manned monitoring-based robotic tractors for the 120HP class

While the labor shortage issue has become serious amid the decline in the number of farm workers, it is required to ensure food security and improve food self-sufficiency. As one of the solutions to these issues, autonomous agricultural machinery (robotic agricultural machinery) that contributes to super laborsaving of agricultural work has been attracting attention. For large-sized fields in particular, expectations for large-sized-class unmanned tractors have been growing, as they will lead to an increase in operational efficiency through cooperative work, etc. In this market where future expansion is expected, the Company commercialized 120HP robotic tractors which are the largest class in Japan ahead of other companies.

Unmanned operations compliant with the "Guidelines to Ensure Safety"

Unmanned operations under manned monitoring are enabled by satisfying the Level 2 set forth in the "Guidelines to Ensure Safety."

Smooth automatic operations

Smooth automatic operations are realized by addressing the issue of false detection of dust scattered by field crop operations.

Expansion to large-sized fields

The product can be used even in larger-sized fields due to the improved communication function.

Reduction of environmental burden

Development of rice transplanters that utilize variable fertilizing technologies and map data

There is a growing need for utilization of variable fertilizing technologies that prevent excessive fertilizer application as a countermeasure against climate change, in step with the progress in the data utilization associated with increased large-scale farming conducted by rice farmers. In addition to variable fertilizer rice transplanters equipped with the Company's unique technologies, we launched map-data-linked variable fertilizer rice transplanters that are compatible with "xarvio® FIELD MANAGER" which is a farming management support system that utilizes AI and is promoted by JA Zen-Noh. Through such means, the Company further strengthened the lineup of smart rice transplanters.

Reduction of fertilizer cost

The product restrains farmers from excessive or insufficient fertilizing by changing the quantity of fertilizer based on data of the fertilizing maps.

Stabilization of crop quality

The product eliminates growth imbalances and reduces lodging by controlling soil imbalances by curbing excessive fertilizing.

Easy operation

Anyone can easily operate the product because the map registration, which was previously required, is no longer necessary to load maps from ISEKI AGRISUPPORT.