

Relationships with Our Customers

Based on the “Customer First Principle,” Kubota aims to offer products, technologies, and services that exceed customers’ needs at a speed beyond their expectations. We seek what we have to do to maximize customer satisfaction based on the “Onsite” approach policy perspective, which includes going to the actual site, seeing the product, and confirming actual facts, and put into immediate action whatever we can.

Kubota will continue to promote initiatives in all aspects of its operations, including development, production, sales and services, aiming not only to improve sales and profits, but also to establish itself as a “Global Major Brand” trusted by a maximum number of customers and capable of making a maximum contribution to society.

R&D

Strengthening Our R&D System

Basic Concept

Because of the globalization of business, it is becoming increasingly important to offer impressive products that satisfy the needs of customers throughout the world, along with the regional circumstances. For this reason, Kubota is continuing to improve its global R&D system with Japan as its hub by clarifying the roles of its R&D sites in Japan and overseas, thereby responding to the local needs of each area of the world.

Regional Marketing and Product Development

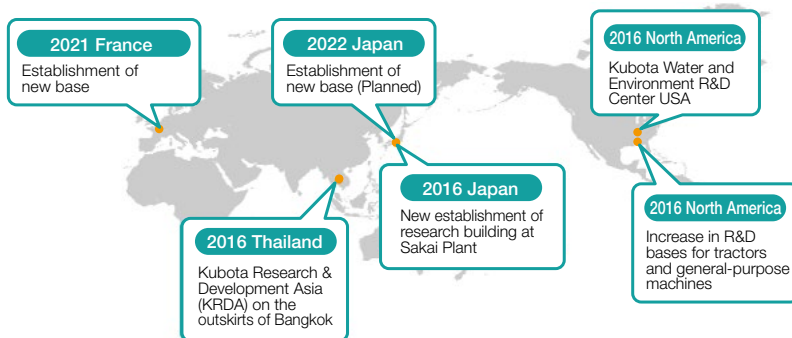
When Kubota began developing its business overseas, products were developed and manufactured in Japan first, and then launched in local markets, and local production was introduced later on. However, in order to grow into a genuine global company, it is crucial to understand the needs of foreign customers overseas and rapidly develop new products. For this reason, Kubota is strengthening local-oriented product development.

Establishment of New Sites in Response to the Local Needs of Major Countries

In Japan, with the aim of speeding the development of agricultural and construction machinery, Kubota opened two research buildings in 2016. In 2018, in the interest of unifying and thereby improving the efficiency of scattered bases, and of strengthening development of core and cutting-edge technology, Kubota began construction of a new development base.

Overseas, looking to improve developmental efficiency of farm machinery and implements built to local specifications, Kubota opened a large-scale R&D base in Thailand in 2016. In North America, along with aiming at an increase in the number of R&D bases for tractors and general-purpose machines, Kubota also opened an R&D base related to water environments and strengthened R&D concerning the planning and operating control of membrane systems. Kubota is looking to establish a new R&D base in France in FY2021, promoting the development of upland farming tractors and general-purpose products.

Plans for New Establishment of R&D Base and Facility Expansion Conditions



R&D building in Japan (Sakai) established in 2016



R&D site in Thailand established in 2016



R&D site for Water and Environment in North America established in 2016

Kubota Group R&D Conference to Share Technical Information Across Divisions

To help address issues in the food, water and environment fields on a global scale, the Kubota Group holds an annual Kubota Group R&D Conference to share information. Over 1,000 engineers typically gather for the conference, but in 2020 videos of spoken presentations were streamed online, and special lectures were conducted with a limited audience and distributed online.



Presentation by Compact Tractor Engineering Dept.

Presentation by Kubota R&D Asia Co., Ltd.

Special lectures (limited audience + online)

Creating Value by Integrating Core Products and Information Communications Technologies (ICT)

With the growing popularity of information communications technologies (ICT) such as the internet and mobile telephones, there are an increasing number of services aimed at society and everyday life that utilize these forms of ICT.

In fields such as agriculture and water infrastructure, Kubota is integrating its core products with a geographic information system (GIS) that utilizes the ICT of internet and mobile terminals together with map data obtained from satellite images. This technology achieves the consolidated management and visualization of data, thereby providing a high-value service. Further in the agriculture field, Kubota installs a global positioning system (GPS) on its core products, with the aim of helping to save labor and improve efficiency in farm work.

Integrating Agricultural Machinery and ICT

In Japan, the agricultural sector is characterized by an aging population of farmers and an increasing amount of idle farmland. The presence of professional farmers* is becoming more and more significant as a solution to utilizing the abandoned farming land. From the outset, there were relatively small farms scattered throughout Japan, and increasing the scale of a farm was considered to increase the burden involved in managing scattered crops. Therefore, it is difficult to increase earnings. Consequently, farmers are looking for a way to increase the quality of their crops as a means of increasing their cost competitiveness.

As a solution to this problem, Kubota began offering the Kubota Smart Agri System (KSAS), a data-based agricultural system which integrates agricultural machinery and ICT to achieve the visualization of various data such as information on fields, farm work and harvest performance. This service also helps to effectively utilize data gathered through this system on the operational status of the harvesting machinery for diagnosis or other services. At present, approximately 11,000 customers are using this service.

To further save labor and improve the efficiency of farm operations, Kubota has brought numerous products to market in the Farm Pilot series of GPS-mounted machinery. The series includes a rice transplanter with a straight-line keeping function; a tractor equipped with a straight-line assist function; a tractor with autosteering; the high-functionality Agri Robo tractor which performs unmanned, remotely monitored tillage, soil puddling, and other operations; the unmanned, remotely monitored Agri Robo rice transplanter; and the Agri Robo combine harvester which enables automated rice and barley harvesting with the operator on board. This lineup of automated machinery makes possible an integrated rice growing system.

* Farm operators and agricultural production corporations that have formulated a management improvement plan pursuant to the Act on Promotion of Improvement of Agricultural Management Foundation, and obtained approval from the relevant municipalities. Often owners of large-scale farmlands hiring employees (workers), actively engaged in farm management.

Monitoring Water and Environment Infrastructure with IoT and AI

The water and environment infrastructure that underpins both social life and agriculture in Japan is facing challenges, such as a lack of financial and personnel resources due to the country's population decline, aging facilities, and the need to respond to frequent natural disasters. National and local governments are turning to information and communication technologies and to the private sector to realize more efficient management, maintenance, and inspection for this infrastructure.

Kubota has been addressing this issue since 2003, providing IoT*-based remote monitoring services for infrastructure facilities and equipment, and has newly sought to improve its services for waterworks through the Kubota Smart Infrastructure System (KSIS), including adding real-time and wide-area monitoring functions. The system has already been installed in over 6,500 infrastructure facilities in areas such as water and sewage, river management, and farm irrigation.

Furthermore, under a tie-up with the NTT Group, Kubota is working to develop AI-based diagnostics and optimal operation control technologies for a range of facilities and equipment. In the agriculture field, through joint research with the NARO**2, Kubota launched the WATARAS farm water management system. This system, which automatically controls water supply and drainage in paddy fields, is being used by numerous farm operators. WATARAS helps automate the entire irrigation process, using water level data to automatically calculate how much water to send to the paddy field and automatically control the pump, which also leads to reductions in both pump power consumption and overall water use.

*1 A mechanism in which things are interconnected via the internet, enabling them to monitor and control each other without interaction with humans

**2 National Agriculture and Food Research Organization

Production / Quality Control

Strengthening Production Systems

Building a Global Production System

In order to achieve the goal of becoming a “Global Major Brand,” Kubota has established production bases around the world in locations close to their respective markets, with the mother plant supporting all the other plants in order to secure consistent quality. Furthermore, Kubota is promoting the deployment of the Kubota Production System (KPS) at each of its bases, and implementing initiatives to raise the QCD level throughout the entire supply chain.



► Establishment of overseas bases (from 2011)

- 2011: Kubota Engine (Thailand) Co., Ltd. (Thailand) Manufacturing of vertical-type diesel engines
- 2011: Kubota Precision Machinery (Thailand) Co., Ltd. (Thailand) Manufacturing and sales of hydraulic equipment components
- 2011: Kubota Construction Machinery (WUXI) Co., Ltd. (China) Manufacturing and sales of hydraulic shovels
- 2012: Kverneland AS [made part of the group] (Europe) Manufacturing and sales of implements
- 2012: Kubota Engine (WUXI) Co., Ltd. (China) Manufacturing of diesel engines
- 2013: Kubota Farm Machinery Europe S.A.S (Europe) Manufacturing of large upland farming tractors
- 2016: Great Plains Manufacturing, Inc. [made part of the group] (United States) Manufacturing and sales of implements
- 2019: Escorts Kubota India Private Limited (India) Manufacturing of tractors

► Expansion of local production

- 2013: Kubota Industrial Equipment Corporation (United States) Manufacturing of medium-sized tractors
- 2016: Kubota Industrial Equipment Corporation (United States) Manufacturing of 4W compact construction machinery (SSL)
- 2017: Kubota Manufacturing of America Corporation (United States) Start of operation of new plants for utility vehicles
- 2017: Kubota Agricultural Machinery (Suzhou) Co., Ltd. (China) Start of operation of a new plant for tractors and wheel combines

Deployment and Dissemination of the Kubota Production System

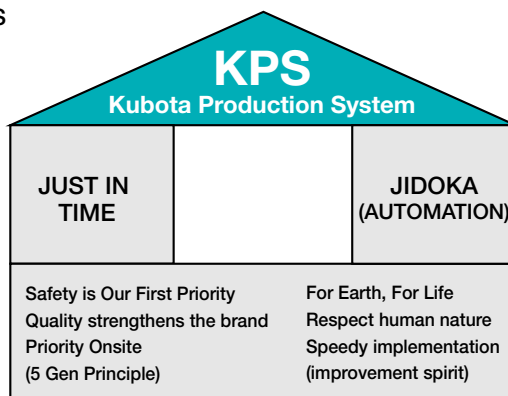
Kubota Production System

- **Kubota’s basic principle for manufacturing**
Kubota aims to achieve manufacturing that impresses customers by offering products and services that exceed customers’ needs at a speed that exceeds their expectations.
- **Kubota Production System**
Kubota Production System (KPS) is the fundamental concept and perspective of the Kubota Group’s manufacturing. While adhering to the basic philosophy, KPS is based on “just-in-time” and “Jidoka (automation),” and continuously pursues thorough elimination of waste.

Activities during 2020

- We held monthly innovation exchange events designed to promote exchanges between domestic manufacturing bases, accelerate base improvement activities, and develop human resources. The meetings are a forum in which members from multiple bases can gather to identify and offer guidance on action themes and base improvement efforts, and collaborate as needed in implementing improvements.
- At each manufacturing base we are working to shorten manufacturing lead times and reduce inventories. We aim to strengthen our systems by shortening worktimes and processing times, reducing preparation between processes, and working to reduce inventories of parts and products.
- We continue to promote “work reforms.” We aim to reduce waste in back-office operations, specifically by scrapping and streamlining operations, and automating certain tasks with the aim of strengthening our systems and improving work-life balance. Up to now, around half of the 850 target Head Office employees have been involved in these activities, and they have eliminated around 100,000 hours of labor time per year.

Structure of KPS



Maintaining and Improving Quality

Quality Assurance in Design and Development

Kubota endeavors to prevent quality problems, and a representative activity in this effort is the initiative to strengthen design reviews. Incorporating the Quick DR* approach, we discuss, test and verify even the smallest incidental change when developing new products, in order to prevent quality problems from arising therefrom.

* Quick DR is a method of preventive action of potential problems by focusing on incidental changes in design and development.



Status of Quick DR Education

Quality Questionnaires

We conduct quality questionnaires among Kubota Group employees in Japan and abroad to encourage them to volunteer information about issues related to quality.

Quality Training

We held training to educate employees about the necessary knowledge, approach, and actions for quality assurance and quality management.

Training name	Number of sessions	Number of recipients
New recruit training	1	183
Technical new recruit training	1	134
New supervisor training	2	40

Training name	Number of sessions	Number of recipients
New foreman training	1	18
Internal auditor training course	7	104
The Safety, Environment and Quality Forum for executive management	1	180

Internal Audits on Quality

The Kubota Group has systematically carried out the following audits.

- Quality Audits : Audits to improve the quality management system aimed at providing better quality products and services.
- Quality Compliance Audits : Audits to ensure compliance with laws, public standards, and contracts with customers.
- Cross Audits : Audits to improve independence and appropriateness of ISO 9001 internal audits, and to improve the competence of auditors.
- Audits at Short Notice

Recall Status in FY2020

- Recall of M-G, GE AT tractors : Total 315 units (began July 16, 2020)
- Recall of M-D tractors : Total 1,531 units (began April 17, 2020)
- Recall of DR combine harvesters : Total 821 units (began April 7, 2020)



For details, click here. (Only in Japanese)

www.kubota.co.jp/important/

QC Circle Activity

Kubota first introduced quality control circles in 1967 for the purpose of “fostering people” and “revitalizing the workplace.” Currently, there are 763 circles involving 8,681 personnel active across Kubota Group companies in Japan and abroad.

Quality Achievement Award

The Kubota Group recognizes employees who have made outstanding achievements in quality improvement, with the aim of encouraging even greater achievements in the future as well as raising quality awareness in the workplace and throughout the Group.

In fiscal 2020, Kubota gave out awards in 10 themes of excellence.

Quality Management System Certification



Click here for details on the status of Kubota’s quality management system certification

www.kubota.com/sustainability/society/quality/

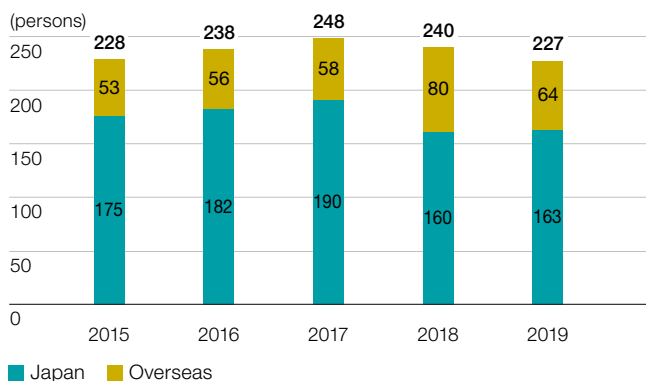
Ensuring Skills to Maintain Customer Satisfaction

Holding the Kubota Group Technical Skills Competition

Kubota holds the Kubota Group Technical Skills Competition every year with the aim of improving manufacturing capabilities. During the contest for FY2019, a total of 227 contestants from 28 bases in 10 countries gathered and put their technical skills to the test in 15 categories, including casting, lathing, finishing and welding. The number of contestants from overseas has increased to approximately 30% of all contestants, and the contest has become a fixture as a global event for the Kubota Group. The contest provides an important opportunity for contestants and staff members of the competition, as well as the supporters gathering from each base, to acquaint themselves with the skill levels of each base, communicate with each other, and get motivated. Kubota will continue to hold this competition, with the aim of further improving its manufacturing capabilities.

* The 2020 competition was canceled to prevent coronavirus infection.

No. of Contestants in the Technical Skills Competition



Group photo of Gold Prize winners (at Sakai site)

Participating in National Skills Competition

To showcase the Kubota Group's commitment to the highest standard of manufacturing skills and to cultivate human resources to take leadership roles in the workplace, Kubota participates in the annual National Skills Competition*, sending representatives to compete in the categories of lathing, mechanical device assembly, mechatronics engineering, and construction steel working. At the 2020 Competition, 14 Kubota competitors participated, coming home with both a bronze medal and a Good Fight Award in the mechanical device assembly category.

* National Skills Competition: National competition for young technicians (23 or younger). Representatives for the WorldSkills Competition held every two years are selected at this competition. It is the "Olympics" of skills, in which young technicians from all over Japan compete in terms of skills.



In the 2020 mechanical device assembly competition, Kubota won a bronze award and a Good Fight Award.

Fostering Manufacturing Personnel to Establish Kubota as a Global Major Brand

Kubota promotes the Kubota Production System (KPS) at its domestic and overseas bases with the aim of becoming a “Global Major Brand.”

The “5-Gen Principle” is implemented to achieve site improvements necessary to advance KPS. The 5-Gen encompasses a philosophy based on the actual site (Genba), actual things (Genbutsu), actual facts (Genjitsu), principles (Genri) and basic rules (Gensoku). The 5-Gen Dojo is a training place for fostering employees who will implement improvements aimed at closing the gap that can arise between the actual and the ideal. In FY2020, 206 people attended this training program.

Aiming to strengthen manufacturing capability and localize human resource development, Kubota has been introducing 5-Gen Dojos overseas. We established a North American Dojo at Kubota Manufacturing of America Corporation in 2014, followed by a Thai Dojo at SIAM KUBOTA Corporation Co., Ltd. in 2016, and a Chinese Dojo at Kubota Agricultural Machinery (Suzhou) Co., Ltd. in June 2020. We will continue to expand the 5-Gen Dojo initiative overseas.



Training at the 5-Gen Dojo in China.

Participants by country (Jan. 2020–Dec. 2020)

- Japan : 130
- North America : 11
- Thailand : 29
- China : 36

5-Gen Dojo History

- Apr. 2002–Mar. 2003 : Established 5-Gen Dojo at the Sakai Plant in Japan
- Apr. 2005–Mar. 2006 : Began receiving overseas employees at the 5-Gen Dojo
- Apr. 2014–Mar. 2015 : Established 5-Gen Dojo at Kubota Manufacturing of America Corporation in the U.S.
- Jan. 2016–Dec. 2016 : Established 5-Gen Dojo at SIAM KUBOTA Corporation Co., Ltd. in Thailand
- Jan. 2020–Dec. 2020 : Established 5-Gen Dojo at Kubota Agricultural Machinery (Suzhou) Co., Ltd.

Customer Service

Continuous Provision of Parts through Redesign of Old-type Parts

To ensure customers can use the products they purchase for a long time with peace of mind, it is important for the products to be of good quality, but in the event of a breakdown, customers can receive the correct service parts quickly, along with repair services.

Kubota focuses on providing a **stable supply of service parts** through communication with customers and suppliers in the market and improvement of service parts procurement operations. We maintain an **immediate delivery rate of essentially over 99%** for emergency orders for service parts in Japan. (Immediate delivery rate: Ratio of inventory supply to orders) (Full-year performance for 2017-2020).

Service parts are usually the same as those produced during mass production. However, for various reasons, there are cases where the service parts which are the same as the mass-produced part cannot be procured or produced. Kubota makes every effort to continue the supply for these parts. In these situations, **a specially appointed department will redesign and recreate the parts.**

Kubota is also considering another possible solution to meet the need for service parts that require redesigning and recreating: 3D printer manufacturing.

This approach has not yet been put into practice, but Kubota continues to study the feasibility of 3D printer manufacturing to be ready when technological advances open the way for its use in numerous applications.

Looking ahead, we will continue to improve customer satisfaction through stable supply of service parts.

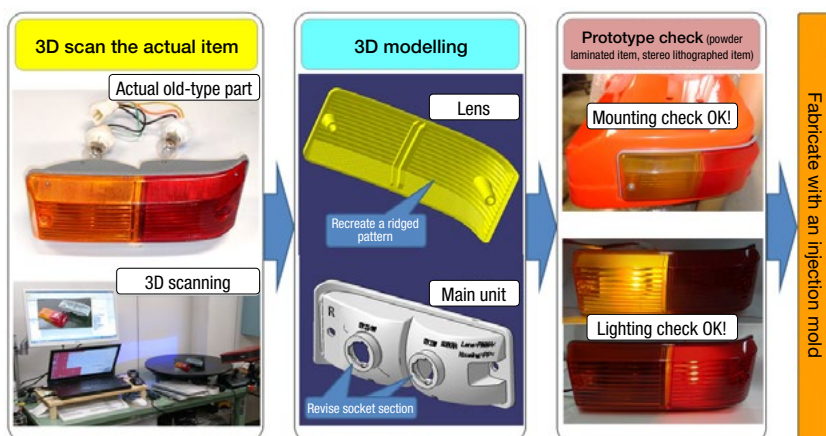
Example case 1 – Seat

Select a similar part to the unavailable part / Newly design a replacement part



Case Example 2 – Lamp

Redesigned by reverse engineering using 3D scanning



In addition to redesigning the part itself, we also conduct activities to enable substitution by selecting similar parts and designing new parts to ensure the part can be mounted compatibly.

Most old-type parts do not have 3D data. We can recreate them by making a 3D scan of the actual item, then modeling it to create 3D data enabling it to be remanufactured.

Contest for Solution Proposals and Service Technology Skills

On December 10, 2020, in order to prevent the spread of COVID-19, the Contest for Solution Proposal was held by connecting Kubota's head office and dealers nationwide online, instead of gathering at the head office as before. In this contest, the seventh of its kind, 11 sales staff members who had won the preliminary rounds from all over the country made presentations within a time limit on their proposals to help customers realize their dreams in an easy-to-understand manner. All the contestants competed with pride in their companies, and the contest was as enthusiastic as ever. Kubota will continue to improve the proposal skills through the contest to provide customers with trust and peace of mind.



Videos of the presenters and the PowerPoint screen were broadcasted

Kubota holds a Service Technical Skills Contest every year, inviting participants from sales companies in Japan and overseas. It was canceled in 2020 due to concerns over COVID-19, but, if conditions allow, Kubota will once again hold this contest, in which top service providers who have cleared preliminary rounds their regions come together to compete. Aiming to expand its presence in the growing aftersales service market, Kubota is designing the competition to raise skill levels in several areas, including the accurate troubleshooting skills that every service professional should possess, repair skills that solve problems fully on the first try, and communication skills for persuading customers.



Service Technical Skills Contest (held in 2019)



Service Technical Skills Contest (held in 2019)

Customer Satisfaction Survey

Kubota conducts a survey to obtain feedback related to domestic farm machinery from the customers of its dealers, and monitors customer satisfaction with its products. We share the feedback and survey scores received from the respondents with the dealers and related departments, and utilize the information to improve our sales and service activities, as well as our products.

“Overall customer satisfaction with store where purchased” for July 2019 to June 2020 improved over the previous year (surveyed from July 2018 to June 2019), rising from 63.8 to 64.2 points.

Kubota will continue to make efforts to improve customer satisfaction.