The year 2015 will certainly be an epoch-making milestone for Kubota. This is because Kubota made a full-scale entry into the global market for large scale commercial farming in 2015. Kubota has long been supplying high-quality agricultural machinery to the rice cultivation market and has earned a very good reputation. However, dry-field farming, which occupies roughly four times the acreage of rice cultivation, had been virtually untapped until recently. Aiming for entry into large scale commercial farming, Kubota has embarked on full-scale development of large tractors for the first time since the foundation of the company, and established a manufacturing base in France. Entry into large scale commercial farming with large tractors is actually the beginning of a new challenge for Kubota: solving the world’s food problems. "M7001 series" large tractors, born in France, will raise the curtain of the new history of Kubota.
French Republic

Current status and issues of the largest agricultural country in the EU

Symbolized by its beautiful blue, white and red flag representing Freedom, equality and fraternity, France is one of the leading nations in Europe. With a land mass measuring approximately 3.1 times that of Japan and a population of approximately 66 million, France boasts a gross domestic product (GDP) of 2,806.4 billion USD (Japan: 4,809.5 billion USD), making it economy the fifth largest in the world following the United States, China, Japan and Germany. In addition, its gross national per capita income (GNI) of 43,073 USD is roughly four times the world average and higher than that of Japan (19,947 USD).1

As with many developed countries, secondary and tertiary industries are the center of its economy, and France is the world’s largest tourist destination, attracting 83.7 million people per year.2

France also boasts a major agricultural industry. With yields accounting for 19 percent of the entire output of the EU, France is the largest producer in the European Union.3 Farmland covers 52.8 percent of the nation (Japan: 12%), the largest in the EU. France ranks seventh in the world in crop production behind China, the United States, India, Brazil, Russia and Indonesia. For the majority agricultural products, France boasts a production volume that ranks among the top 10 in the world. Among the major agricultural producers, France stands out in the volume of wheat, barley and corn in grains, potatoes and sugar beet in root vegetables, and beef, pork, bee and milk and cheese in livestock. In addition, France is active in grape production and is the world’s largest producer of wine.4 Incidentally, France’s food self-sufficiency rate, on a calorie basis, is 129% compared to Japan’s 39%.5

Often referred to as the “breadbasket of Europe,” the current outlook for French agriculture is optimistic. For instance, since the 1990s, the farming population has been decreasing more slowly, and farmland area is also decreasing due to diversification and the abandonment of cultivated land as urban populations have increased. In addition, the excessive use of nitrogen fertilizers to improve productivity has made environmental pollution a serious problem. These problems are common issues faced by the agricultural industries of not only France, but also Japan and other developed countries.

From France: Solutions to global food problems

Agricultural Policy has been implemented by 28 EU countries, including France. The Common Agricultural Policy (CAP), introduced in 1962, CAP is the first agricultural standard in Europe. Needless to say, France is the leader of CAP. The current CAP system is composed of two pillars: income support and market measures for farmers, and the Rural Development Policy, which includes initiatives such as environmental conservation and the diversification and strengthening of the competitiveness of rural economies. Through these policies, France has been able to stabilize supply and prices in a single market, and maintain the farming income levels.

CAP is currently aiming to achieve sustainable, productive and competitive agriculture, while taking into account recent issues such as environmental protection and support for farmers in the wake of globalization. For this reason, the French government is taking measures to create food safety, protect the environment and achieve sustainable agriculture. Such measures include additional subsidies for farmers engaging in organic agriculture.

Expanding the future of food, water and the environment.
Large Farming Tractors “M7001 Series”:
Path of development

Kubota established a production base for medium and large scale farming tractors in Spain in 1986 with the aim of expanding business in the EU region, starting with Spain. A slump in the Spanish agriculture industry, however, prompted Kubota to pull out of the region in 1994. Decades passed, but the challenge of entering the large scale commercial farming market remained the most important and urgent issue for Kubota, whose management goals include contributing to solving the global food problem. Kubota’s farming tractors and combines harvesters, which have been supplied mainly to Japan and other Asian countries, have been highly approved by users. However, those products were primarily intended for rice farming. In the world crop acreage, dry-field farming occupies roughly four times the acreage of rice farming. With this in mind, it is not an exaggeration to say that the door to solving global food problems cannot be opened without entering the large scale commercial farming business which spans across the globe.

That was the time when the top management made the long-awaited decision in 2005 to enter the market for large scale commercial farming. Kubota’s target was Europe, which is one of the largest farming areas in the world. Entry into large scale commercial farming also entailed the development of large tractors, which was a venture into unknown territory for Kubota.

Product concept: complete ease of use
Since the 1970s, Kubota has been supplying small tractors of around 50 horsepower to the European market, and is currently the top three in Europe in this field. However, Kubota’s small tractors are employed mainly in light civil engineering such as ground leveling in public, pavement cleaning, and light work such as grass cutting. Dry-field farming applications, which are directly linked to production, including plowing and sowing, soil preparation, chemical spraying, and carrying pasture in dairy farming, were a virtually uncharted market for Kubota.

To make a full-scale entry into the market for large scale commercial farming, a project was started within Kubota in the winter of 2010. Four persons were called in addition to the aforementioned Yamada, Teruhito Yamauchi from the Research and Development Division (current position: F/T Project Team Leader, Second Design Office, Tractor Engineering Dept.), Motonari Inaoka, who had been involved in the development of tractors since joining the company, from the Design Division (current position: Engineering Manager, Product Support Dept., KUBOTA FARM MACHINERY EUROPE S.A.S. (KFME)), and Eiji Nishi, who is responsible for design, really felt was the need for differentiation. Moreover, the design concept of small tractors advances from rice farming was fundamentally different from that of large farming tractors. Kubota was a new entrant, and our competitors already had a lineup of large scale products. Customers would never choose our products. To make a full-scale entry into the market, we strove to establish market supremacy and clear differentiation. As a result, the new design concept of the large farming tractors was fundamentally different from that of rice farming tractors. They are usually equipped with operating equipment called “implement” for effective use. Whereas rice farming tractors require small tractors. Aspiring to create products that would meet their expectations, we spent about a year formulating the product concept. As a result, we decided to set our target as the 150-170 horsepower range and started the development of large tractors.

In the large tractor market, however, Kubota was a new entrant, and our competitors already had a lineup of products. Customers would never choose Kubota’s tractors unless we strove to establish market supremacy and clear differentiation. Moreover, the design concept of large farming tractors was fundamentally different from that of rice farming tractors. To address these needs, our team concluded that they should maintain the strength Kubota had cultivated in the rice farming market, which was fine-tuned over years of experience and a proven track record in developing tractors with a focus on ease of use. We have long years of experience and a proven track record in developing tractors with a focus on ease of use. In the all-out pursuit of ease of use, we made it the basic concept of our large farming tractors (Inaoka).

Also incorporating the technology of Kverneland AS
Kubota’s turn verified all the functions inside the cab, one by one. Particular attention was given to design of the multifunction lever, which enables tractor operation with one lever. In order to significantly reduce operator burden, the layout of switches and switches inside the cabin was optimized and operating elements were concentrated near the handle of the operator. As a result, the new design minimized operator fatigue even over long hours of operation. European agriculture, typified by France is also referred to as rice farming. It ranges from dry-field crops such as wheat and corn, dry livestock such as dairy products and meat, and fruit production such as grapes and olives, and customer needs for tractors are also diversified. To address these needs, Kubota’s large tractor design utilized detailed customization, from cabin configuration to tires.

In early 2012, Kubota began fabricating the first prototype of a large tractor and also made the bold move of essentially announcing its entry into large scale commercial farming in the world. Kubota acquired “Kverneland AS” of Norway and made it a Kubota group company. Kverneland AS is a manufacturer of implements for tractors that has strong brand power in Europe, a wide range of products, and high technical capability. This acquisition gave Kubota the advantage of being able to develop large tractors that are best matched to implements for dry-field farming.
Valiant Challenge Bears Fruit: The Launch of “M7001 Series”

Global development framework

Kubota’s manufacturing base for large tractors is located three-hundred kilometers north of Paris on the French-Belgian border in Bierne, Dunkerque Precinct, Nord Department. While other countries were also considered initially, this location was selected because, in addition to France being the center of European agriculture, it is close to a seaport, which made it convenient for exporting products to North America and other regions.

A global development framework was created for large tractors so that local needs could be reflected immediately. Due to differences in the business culture and product development climate, traceability was required in development to find a meeting point. For example, the concept of “local production” was different: Product development at Kubota traditionally consists of actually fabricating prototypes, but mainstream trial production in Europe involves fabricating prototypes in three-dimensional design. Inoue’s team believed that ease of use could not be determined unless prototypes were actually fabricated to identify the issues and problems that cannot be identified in 3D design. The development approach of “fabricating prototypes on-site and actually testing them” has been a Kubota tradition, which has resulted in high quality and customer trust. The development team fabricated prototype tractors, while teaching the local staff the importance of this step and debating with them until they were convinced.

Today, good design is required even for tractors, as it is said that quality shows in the appearance. For the first prototype, particular importance was placed on exterior design such as the bonnet, and four-eyed headlamps were installed. In addition, Kubota pursued lower prices by reducing manufacturing costs while aiming at creating a tractor with high mobility and usability.

Tractors that put precision agriculture into practice

One of the features of the newly-developed large tractor is “electronic control.” In recent years, “precision agriculture,” enabling it to be used to reduce the environmental impact by detecting the proper amount of fertilizers and chemicals, and as agriculture becomes more precise, electronic control of tractor is becoming more complex. On the other hand, achieving ease of operation was an important goal for Kubota, which had an “alluring point of ease of use” as a product concept. Kubota achieved simple and comprehensible operability by installing the tractor and implement information on one LCD and developing an all-in-one terminal that minimizes the number of user operations to the limit. In addition, optimum workability that reduces the operator burden was enabled by implementing integrated control of the engine, transmission, hydraulic equipment, implements, etc. through a CAN network. Furthermore, the tractor was designed to support precision agriculture by incorporating compatibility with implement control using GPS/DR/DORUS and installing an automatic steering system. This approach to precision agriculture will be an important step toward achieving sustainable agriculture, which Europe and other developed countries are aiming at.

Mass production of tractors finally begins

In December 2013, Kubota announced that Kubota Farm Machinery Europe S.A.S. (KFM) would be established in Bierne, France. Development proceeded at a rapid pace in parallel with plant construction. One challenge was the local sourcing of parts. In Japan, it was easy to share the image of the specifications with suppliers based on long years of interaction, but the situation with European suppliers that Kubota was dealing with for the first time was totally different. Kubota staff made strenuous efforts to finalize the specifications one by one and managed to start test production. As the start of full-scale production neared, a sense of tension to “deliver tractors that would please customers” helped integrate the minds of all staff and became the driving force to overcome various walls and hurdles.

In February 2015, “M7001 Series” tractors were exhibited at SIMA, one of the three major agricultural machinery trade shows in Europe, and received the “MACHINE OF THE YEAR 2015” award. The design and achievement of integrated control through full-scale production that made by Kverneland AS were highly evaluated. In August, Kubota and its Alliance began field demonstration of the M7001 Series, starting in southern France, and received voices of praise and expectations from many users.

In September 2015, the opening ceremony of KFM was held in grand fashion. Guests of honor included the Ambassador Extraordinary and Plenipotentiary of Japan in France and the Vice Governor of Nord Department, as well as Kubota president Masatoshi Kimata, KFM president Manpei Yamamoto and KFM employees from the Kubota side. Many members of the European press also came to cover the event. In his welcome speech, Kimata said: “2015 will be a year of challenge for Kubota to leap to the next stage. We would like to provide products and services that will exceed the expectations of customers at a speed that will exceed their ‘anticipation.’” Thus, the “M7001 Series” finally entered the mainstream production phase.
Road to a “Global Major Brand”

Every challenge is a first for Kubota

Kubota’s challenge continues

Kubota employees. However, there is another market for large-scale commercial farming that is even bigger than the European market: North America. Many tractors used in large-scale commercial farming in North America are in the 200 horsepower range or larger. The challenge of developing larger tractors awaits us up ahead. The battle for survival has now begun. To win that battle and supply the M7001 Series to the markets for large-scale commercial farming around the world is the road to becoming a “Global Major Brand” and enabling Kubota to make significant contributions to solving global food problems.

Expanding the future of food, water and the environment.
Kubota's small construction machinery boasts the top market share in Europe

While Kubota is known as a manufacturer of tractors, combines and other agricultural machinery, it also manufactures construction machinery such as mini excavators in Europe. Kubota has three sales companies, KUBOTA BAIJINEN GmbH (KBM), a manufacturing and sales base in Germany, KUBOTA EUROPE S.A.S (KU) in France, and KUBOTA U.K. Ltd. (KUK) in the U.K., and has been supplying mini excavators and wheel loaders of eight tons or less to the market through its dealer network. Mini excavators supplied by Kubota are highly evaluated in urban civil engineering. They are easy to operate, even in small spaces, but have powerful excavating capability despite their compact size. They also feature a wide range of operations. In the 27 years since its establishment, KBM has worked hard to cultivate customer trust.

KBM's mission to protect the landscape and environment of Paris

Mission to Protect the Landscape and Environment of Paris

● France, the development of systems related to landscape conservation began in 1913, when a policy of historical building conservation was institutionalized. The most epoch-making of the conservation laws was the Malraux Act. Formulated in 1962 by André Malraux, who served as the Minister of Culture, this law was designed to complement other legislation relating to the conservation of historical and aesthetic cultural heritage and promote the restoration of sites on buildings in Paris city can be seen.

FEATURE “French Republic”

Nobuyuki Ishii
Executive Officer, KUBOTA Corporation
President of KUBOTA EUROPE S.A.S

Two fundamental landscape conservation laws

In France, the development of systems related to landscape conservation began in 1913, when a policy of historical building conservation was institutionalized. The most epoch-making of the conservation laws was the Malraux Act. Formulated in 1962 by André Malraux, who served as the Minister of Culture, this law was designed to complement other legislation relating to the conservation of historical and aesthetic cultural heritage and promote the restoration of sites on buildings in Paris city can be seen.

Looking down on the Champs Elysees from the Arc de Triomphe:

● In times of rapid modernization, with old towns being demolished nationwide and high-rise buildings going up in the middle of historic urban districts, the main point of the Malraux Act was to revive townscapes by restoring traditional architecture around historical buildings. However, the Malraux Act was revised many times because of its perceived connection to the real estate business. After the “Landscape Law” was enacted in 1993, the Malraux Act gave way to the "POS (Exclusive Land Use Plan)" which aimed at protecting historic urban districts and the Conservation and Recovery Plan. The POS in effect today.

Let us also touch on the Fuseau Regulation, which was enacted in 1977 for the purpose of protecting historical views. A Fuseau is a spindle-like cylindrical shape with the middle section bulging. This shape represents the human field of view. Views of monuments are classified into three types based on the Fuseau Regulation, which regulates the height of buildings in front of and behind monuments to prevent obstruction of the view. The Fuseau Regulation currently applies to 47 locations in Paris, and it also serves as the basis for criteria related to building height regulations in other regions.

The origins of the Fuseau Regulation was in the landscape conservation in front of and behind monuments. The Palace of Versailles is a good example. The major tourist attraction covers an enormous area, but you cannot see high-rise buildings from anywhere on the grounds. Such thorough landscape conservation is only possible in France. Planar landscape development in Paris, which started in the renovation projects carried out in historic urban district conservation areas, gradually spread to wider areas until it covered the entire city.

Construction machinery that contributes to environmental conservation

In parallel with landscape conservation, environmental protection is an important theme. Environmental problems in urban areas include various elements, but pollution caused by vehicle exhaust emissions is a common challenge for all developed countries. The EU has been imposing strict regulations against exhaust emissions for some time now.

Kubota's construction machinery and agricultural machinery currently comply with the regulations of Japan, Europe, and other countries. In recent years, however, regulations for particulate matter (PM) and nitrogen oxides (NOx), both diesel engine emissions, were updated in EURO6, which was envisaged in 2014. Starting in 2015, all new model tractors sold in the EU will be subject to EURO6, and in the near future, it is expected that stricter regulations will also be introduced to construction and agricultural machinery.

Exhaust emissions from construction machinery in urban civil engineering is considered a major issue in Europe. EURO6 regulations must be complied with of course. But Kubota hopes that we must also see our future sights on conversion to clean energy and electric motors.” (Ishii)

Conserving the landscape and environment

That is the mission that Kubota’s construction machinery must undertake.
Together with the City – The Vision

Kubota’s Mini Excavators Aims for

The Marais district retains signs of the Middle Ages

The Marais district of Paris is on the right bank of Seine River north of Saint-Louis Island (3rd and 4th districts of Paris). It is a well-known historical district lined with beautiful 17th-century buildings. The district has also become a symbol of landscape conservation, as it was cited by Malraux in his speech to the National Assembly. With many noble building mansions in this area, the Marais district was the most prosperous and gorgeous town block in Paris around the 17th century. However, as the streets were lined with buildings over time, the Marais district, which retained the signs of the Middle Ages, gradually declined.

Under the circumstances, Malraux introduced the Malraux Act, under which large-scale construction work was carried out to restore the town of the 17th century. Construction was underway near the Forest of Boulogne. At the construction site, lifelines such as electricity, telephone, water and gas were being laid under the pavement in a public utility conduit. Public utility conduits are considered useful in improving the aesthetics of the town by allowing power cables and such to be buried underground.

Construction work underway, with a mini excavator blending into the landscape of the Auteuil Botanical Garden.

In recent years, utility conduits have also been used commonly in Japan. Underground laying of public utility conduits is playing a role in conserving the landscape of Paris. We interviewed Mr. Sylvain Palaric of Bouchard Company, a dealer that supplied the mini excavator to the site. He has been handling Kubota mini excavators for 11 years.

“We carried another company’s small construction machinery in the past, but we switched completely to Kubota. Quality, reliability and thorough after-sales service were things that other companies just could not match. Above all, Kubota machines were highly prized by operators. The cabins are comfortable, less tiring and a whole lot easier to operate. Excellent durability is also one of the charms of Kubota products.”

The Kubota mini excavator continued its excavation work, as it smoothly blended into the townscape of Paris.

Needs for environment-friendly construction machinery

Not limited to the Marais district, preservation of many old monuments and towns is based on the concept of landscape conservation. Narrow, intricate pavement made of aged cobblestones is another feature of the city of Paris. As this pavement is generally vulnerable to vibration, large construction machinery cannot be easily used. That is one reason that Kubota’s maneuverable, light and dexterous mini excavator equipment is highly prized. Kubota has been ensuring landscape conservation through equipment operation itself; for example, attaching rubber crawlers for operation on cobblestone pavement. Mr. Benjamin Lanni, an operator who runs a company that engages in landscape construction work in Paris, recently purchased three Kubota mini excavators units.

“We switched from another company to Kubota. One reason is the brand power and its high reliability. As operators know intuitively, the vehicle body is well-balanced and high horsepower makes it very powerful. Another point that justifies the selection of Kubota is the quick response to our requests for customization.”

We asked Bernard Denoual, who has been in charge of mini excavators sales at K.E. for over 30 years, for his outlook on business in Europe.

“Kubota’s share in the mini excavator market in Europe is now about 10 percent. Although we are maintaining the top market share, our goal is to pull away from our competition. In addition, we believe that we have a mission to create a better townscape as we contribute to landscape conservation. In order to achieve these missions, we must provide construction machinery that is dexterous and compact enough to perform efficiently in city streets. The choice of Kubota mini excavator, which is promoted by many dealers and users, continues to work actively in the city of Paris and in European cities.”

France is an agricultural powerhouse, and a mature nation. Kubota’s products and technology play key roles in solving the global food problems and conservation of urban landscape and environment. The role of Kubota products and technologies play is great. By accumulating a track record in France, a nation known for the high awareness of its citizens, Kubota will propose to the world an “image of a sustainable society,” which is a goal of not only France but all developed countries.

A mansion of nobility in the Marais district. “Marais” means “swamp” in French, as the district was once a large track of marshland filled with swamp until the 13th century. In the early 17th century, after French King Henry IV built the Place Royale (now Place des Vosges), noble people competed to build mansions in the area, shaping the original form of the current Marais district.

Communication with dealers is indispensable. Shown here is a dealer in France, Mr. Jean-Claude Meunier, who runs a company that engages in landscape construction.
Global Work Style 1
Think on your own, and take action
“The philosophy of a salesperson of mini excavator”

Thomas Leflot
Export Sales Representative Construction Machinery Division, KUBOTA EUROPE S.A.S. (Belgium), Joined Kubota in 2014

Traveling around in Europe to support local dealers

...a new product to sell, and then take action to solve those issues. If the product knowledge of a dealer is insufficient, I will organize a sales training program. I have a deep understanding of our products and then take action to solve those issues. If the product knowledge of a dealer is insufficient, I will organize a sales training program.

And because I was strongly attracted to Kubota’s proactive hiring of women for technical positions.

The New Multi-Purpose Tractor, adapted to local needs, in the world’s largest market, Indian market

India boasts the largest tractor market in the world, with an annual demand of approximately 600,000 units. In India, tractors are used throughout the year, not only for agriculture work but also for transportation of crops or construction materials. Kubota has developed a new multi-purpose tractor, specially designed to meet the needs of the Indian market. This model is smaller and lighter than the conventional models, which are more suitable for agricultural work.

As we announced in the previous issue, Thilawa Industrial Park has opened. The industrial park has joined the ranks of others in Myanmar and Japan in a special economic zone covering an area of 2,400 ha. In Zone A (approx. 400 ha), which was developed in advance, Kubota’s mini excavator and other products are being used for water intake and supply, while Kubota’s proprietary treatment plants, which feature low running cost, are used in the water intake and waste treatment facility. This track record was highly evaluated and led to an additional order for the second phase of construction. Kubota is also undertaking the construction of a water treatment plant for a Japanese food factory which is scheduled to move in soon. Kubota will continue to contribute to sustainable future economic development in Myanmar.
Since the first issue of 1992, the previous "GLOBAL INDEX" publications have been considering social problems around the world for more than 20 years. Previous issues (magazines and web contents) can be viewed from the special "GLOBAL INDEX" website. Please visit the special "GLOBAL INDEX" website for details.

http://www.kubota-global.net/globalindex/

Notice on “GLOBAL INDEX” back numbers
Since the first issue of 1992, the previous “GLOBAL INDEX” publications have been considering social problems around the world for more than 20 years.

M7001 Starting up!
— From France to the global market for large scale commercial farming.
Kubota’s challenge for solving food problems and achieving sustainable agriculture —

GlobaL INDEX 2015

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We offer our prayers for the victims of the terrorist attacks in Paris on November 13, 2015.