Technology Development Strategies in the Powersports and Power Unit Areas –To Become the Top Brand–

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Introduction

Setting a goal of achieving sales of 1 trillion yen in our 2030 Vision, Kawasaki Motors aims for sustainable growth as a leading player in the power unit area, which spans across high added-value powersport vehicles, such as motorcycles and off-road four-wheel vehicles, as well as engines for lawn mowers. We have been growing rapidly, achieving 337.4 billion yen in 2020 and 604 billion yen in 2023, and promoting technology development to achieve our vision, also eyeing the possibility of moving up the schedule for the initial goal.

Our core competencies are ① product competitiveness based on the launch of new products that overwhelm competitors both in terms of quality and quantity, industry-leading electrification, support for CASE (Connected, Autonomous, Shared, and Electric), and other strengths and ② strong brand power rooted in customer value as a top manufacturer that combines innovation and tradition. We promote efficient and agile technology development to ensure our advantage over competitors, leveraging these strengths.

Our departments developing motorcycles, off-road four-wheel vehicles, personal watercrafts (PWC), utility engines, and other products cooperate with one another and learn from each other, while developing technologies individually.

1 Motorcycles

The motorcycle business targeting advanced countries is our primary source of revenue. In this area, we promote technology development to flexibly address global affairs and demands, for example, by actively launching high added-value models powered by the internal combustion engine (ICE), while accelerating the development of products that follow the trend toward a decarbonized society, including EVs, HEVs, and hydrogen engines.

(1) To become the top electric vehicle brand

One of our technology development strategies is to ensure and enhance the "Fun to Ride" (the pleasure of riding and the joy of taking control) that we have established with ICE vehicles with our electric vehicles as well, and, of course, low noise and low (zero) emissions, which are features of electric vehicles. We have released

Innovation

Fig. 1 Innovation–launch of EVs, HEVs, and motorcycles

Tradition

Fig. 2 Tradition–40th anniversary of the Ninja and 100th anniversary of the MEGURO

four EV or HEV models to become the top electric vehicle brand.

・Ninja e-1 and Z e-1 (EVs): The Ninja e-1 and Z e-1 are pure electric full-size sport motorcycles. We developed technologies that satisfy a wide range of customers' desires, packing these models with EV-specific functions, such as the walk mode in addition to the riding mode selection function and the e-boost function, by leveraging powerful acceleration and great response in the low engine speed region.

・Ninja7 Hybrid and Z7 Hybrid (HEVs): The Ninja7 Hybrid and Z7 Hybrid are the first strong hybrid motorcycles in the world. Their 600-cm^3 class bodies are equipped with a hybrid unit consisting of a four-stroke two-cylinder 451-cm^3 engine and an AC synchronous motor. By providing an EV mode and two hybrid modes, We developed according to the (greedy) model concept to allow customers to ride as they like. For example, customers can select the fuel-efficient performance of the 250-cm^3 class or the power performance of the 1,000-cm^3 class by switching between the hybrid modes.

(2) Entry in new areas

・Elektrode (EV): The Elektrode is an electric bike for kids we developed to deliver the spirit of "Fun to Ride" to children as well. With high durability, a sporty appearance, and no emissions or exhaust sound, this is the smallest strategic electric model for carbon neutrality that even small children can easily handle to experience the joy of riding. This bike, developed with the development technology of the KX, is an entry model for future professional motocross riders.

・noslisu and noslisu e: We developed technologies for three-wheel electric vehicles under the concept of delivering comfortable and easy mobility to everyone. With the technologies and experience we acquired from making

Fig. 3 Elektrode

Fig. 4 noslisu and noslisu e

motorcycles, we realized the stability unique to three-wheel vehicles with the natural controllability of bicycles using our proprietary two-wheel steering mechanism for a smooth ride. The frame and the link mechanism for the front wheels also create a nimble style filled with functional beauty. The specifications for power-assisted bicycles and electric vehicles that require a driver's license support free lifestyles by delivering a sense of security, convenience, and joy to a wide range of users.

(3) Continuously launching new ICE models

We have continued to launch new ICE models, introducing advanced technologies, improving products, and enhancing equipment to offer a wider range of purchase choices for customers. This is also important to ensuring stable operating revenue.

・Ninja H2 SX: The Ninja H2 SX combines state-of-the-art technologies as a 1,000-cm^3 supercharger model equipped

Fig. 5 Ninja H2 SX

with advanced driving assistance (forward collision warning, adaptive cruise control (ACC), backward blind spot detection (BSD), and auto high beam). We plan to deploy the advanced driving assistance function to the main models, starting with the technology development for this model.

・Ninja ZX-4R: The Ninja ZX-4R has a body equivalent to a 250-cm^3 class model equipped with a 399-cm^3 parallel four-cylinder engine with best-in-class performance. This supersport model offers ample power with sharp, nimble handling. With electronically controlled throttles, a quick shifter, and a full-color TFT (thin film transistor) liquid crystal meter that supports connectivity, the innovations of this model have revitalized the tradition of the 400-cm^3 class four-cylinder engine, which was once discontinued, attracting a wide range of customers across the world.

・Ninja 500 and Z500: We succeeded in reducing the weight of Ninja 400 and Z400, widely accepted in the market, while increasing their engine capacity, enhancing their capability as products with a new full LCD (liquid crystal display) meter, and evolving their design at the same time. We developed these models with rational designs and launched them as global strategic models.

・ELIMINATOR: We developed this model by evolving the Low & Long style and considering nimble and natural handling with the aim of resurrecting this once discontinued name. The combination of the traditional design and latest technologies allows you to enjoy riding this attractive model without getting overly worked up. This model particularly gathered attention by adopting a dash cam ahead of most products in Japan. One of our technology development goals with this model was a short time-to-market, which was made possible by using our simulation technology without making prototype vehicles.

Fig. 8 ELIMINATOR

(4) To become the top off-road vehicle brand

As the off-road vehicle market is expected to stably expand, our room for growth is also large. We aim to become the top brand in the off-road dual-purpose motorcycle segment by enhancing our product lineup.

・KX450: Over the course of its 50-year history, the KX450 has evolved with advanced technologies to be the best motocrosser for professionals based on the concept of it being all-rounder bike. This model is equipped with a new engine with higher controllability and a new chassis with more stable front wheels and related components even compared to the proven previous model. We will continue to develop the best model for professionals.

Fig. 6 Ninja ZX-4R

Fig. 7 Ninja 500

Fig. 9 KX450

Fig. 10 W175

(5) Competitiveness enhancement in emerging countries

We are establishing lower-cost procurement and production methods, mainly by developing a strategy model for India.

・W175: The W175 was developed as a model that inherits this tradition. We are launching this model in the Indian and other markets to increase our market share in Asian countries and increase procurement in India and strategically deploy those parts to other models as a foundation for cost reduction.

2 Off-road four-wheel vehicles

Because the strong growth of the off-road four-wheel vehicle market in North America is expected to continue, we have developed technologies to establish this area as our core business that will surpass our motorcycle segment, launched competitive models, and actively promoted the enhancement of production factories.

・TERYX KRX4 1000: The market is shifting to large, high-performance models for families and the development of such models is heating up. The performance enhancement of this model is just a stepping stone, and is a new starting point for further technology development as customers demand much higher performance models.

Fig. 11 TERYX KRX4 1000

Fig. 12 RIDGE XR

・RIDGE XR: The RIDGE XR is a model that supports both utility and recreational uses to accommodate a variety of situations. We successfully launched this reliable model that provides comfort even in severe ambient temperature environments by adopting a four-cylinder engine to achieve a linear response, smooth acceleration characteristics and full cabin and HVAC (heating ventilation and air conditioning) specifications.

3 Personal watercrafts (PWCs)

Whereas a high performance engine and hull make PWCs "Fun to Ride" and gives them their enduring popularity, development to support different uses such as towing wakeboards and transportation for recreational purposes has been taking on greater importance.

・JETSKI ULTRA 160LX, ULTRA LX-S ULTRA, and LX-S ANGLER: As an increasing number of models with functional and equipment enhancement have been launched in the PWC market, we developed the JETSKI ULTRA 160LX and ULTRA 160LX-S equipped with a highly demanded naturally aspirated engine. The ULTRA 160LX-S ANGLER is a derived product that has specifications and equipment to enjoy fishing, serving as a means of sea

Fig. 13 JET SKI ULTRA160 LX-S ANGLER

transportation to fishing spots, and sometimes, as a fishing boat. We will continue technology development to provide specifications and equipment for the expanding range of marine recreation scenarios.

4 Utility engines

(1) To become the top mower engine brand

・FX820V EVO: We developed the FX820V EVO as a new-generation engine with higher power and fuel efficiency as well as lower emissions as the computerization of fuel supply is advancing in the commercial mowing market in the U.S. This model has been highly appreciated since it has 20% higher engine power performance and 10% to 20% higher fuel efficiency compared to our conventional class with the same displacement as a model with three valves including two inlet valves and enjoys higher workability as a mower.

(2) Autonomous mower

To further expand our top market share, we have started developing key technologies for autonomous riding mowers by supplying autonomous riding mower systems and suitable engines to address increasing demand for labor-saving due to chronic labor shortages and rising wages in the landscape industry in North America. We will develop the control technology for stable autonomous riding using the vehicle structure specific to riding mowers with an eye to launch.

Fig. 14 FX820V EVO

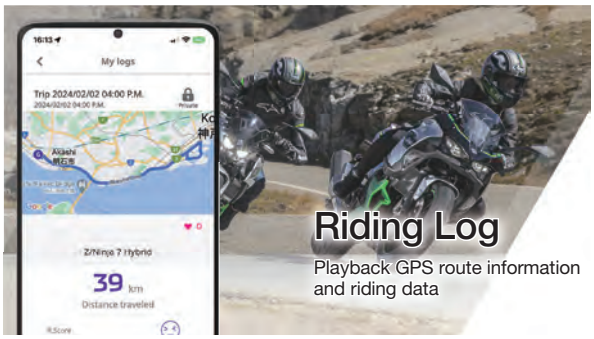

Fig. 15 RIDEOLOGY THE APP

5 ICT

(1) Connected vehicles

RIDEOLOGY THE APP is a smartphone application with a Bluetooth connection function. RIDEOLOGY THE APP for motorcycles allows users to check various vehicle information and change various vehicle settings from their smartphones. We facilitate interaction between customers and vehicles and support the joy of riding through the provision of these services, offering new value. We will continue to develop technologies to add new functions.

6 Taking on the challenge of new businesses

(1) Entry into the aviation business

We have promoted investment in and collaboration with VOLTAERO, a French electric and hybrid aircraft startup founded by a former CTO of the Airbus Group. We have developed technologies toward a trial flight using the engine of the Ninja H2 SX in 2025.

We are also developing a new six-cylinder engine.

(2) Development of hydrogen engines

We joined Hydrogen Small mobility & Engine technology (HySE), a technological research association established in May 2023. We have provided our four-cylinder supercharged engine for trial to promote the basic research of hydrogen engines. We have exhibited

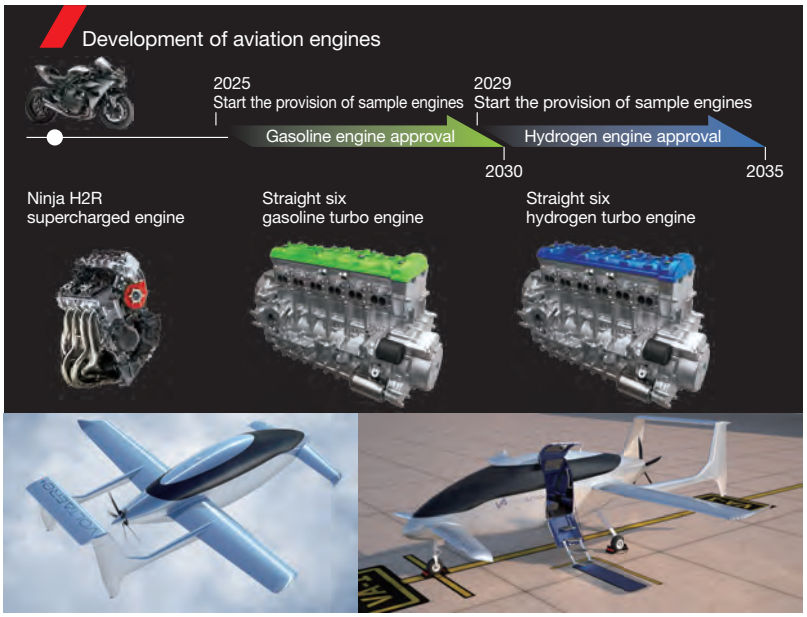

Fig. 16 Entry into the aviation business

Fig. 17 Hydrogen engine vehicles

Fig. 18 Factory in Mexico

experimental hydrogen engines in two-wheel vehicles at various domestic and international events. Moreover, a four-wheel vehicle with a hydrogen engine was already used in the Mission 1000 program in Dakar 2024, and has achieved results. We will continue technology development to provide alternative options toward the elimination of fossil fuels.

Production strategy

For the future growth of our company, it is important that both our high technology and more reasonable prices are loved by customers. So, cost strategy is now one of our development strategies. Local parts procurement through the deployment of new factories for overseas production has become very important for development strategies. We are gradually advancing with the establishment of development processes including this aspect.

Conclusion

We will work on creating a recycling society, aim for zero emissions, and realize a society in harmony with nature, setting sustainable global development as an important corporate mission.

We will attempt to achieve our vision as quickly as possible and eagerly deliver abundance to all countries and people around the world by both developing these products and strengthening our sales power to become a brand with the top market share in each category.