

Group Vision 2030

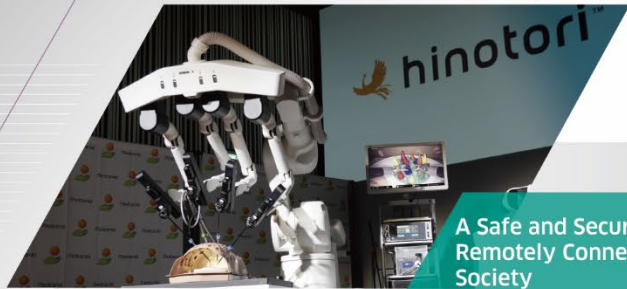
Progress Report Meeting

June 1, 2021

Kawasaki Heavy Industries, Ltd.

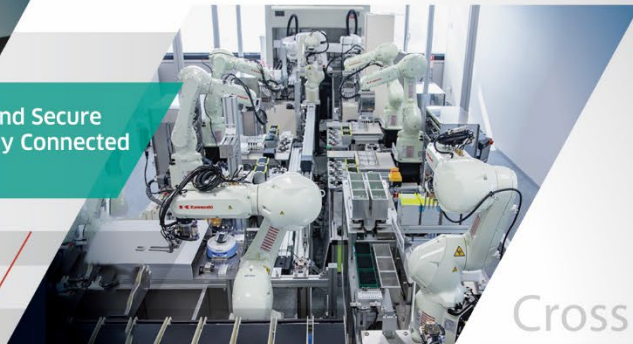
Yasuhiko Hashimoto,
President and Chief Executive Officer

カワる、
サキへ。
Changing forward



New Values

A Safe and Secure
Remotely Connected
Society



Cross Over

つぎの社会へ、
信頼のこたえを

Trustworthy Solutions
for the Future



Energy and
Environmental Solutions



"Near-Future" Mobility

Frontier



カワる、
サキへ。

Changing forward

サキへ。

Group Vision
2030 initiatives
For the Future

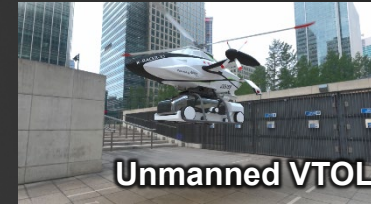
A Safe and Secure Remotely-
Connected Society

Business scale
200 billion yen

Business scale
600 billion yen



Near-Future Mobility



Energy and Environmental Solutions



- Decreasing birthrate and aging population
- Remotely-connected society
- Global environment
- Disaster response

2021

2025

2030

Group Vision
2030 initiatives
For the Future

- Decreasing birthrate and aging population
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A Safe and Secure
Remotely-Connected Society



PCR Testing Business



Robotic Assisted Surgery System



Remote Robot Business

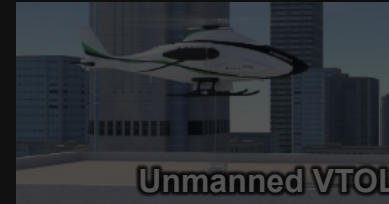
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Near-Future Mobility



Delivery robot



Unmanned VTOL

Energy and Environmental Solutions



Hydrogen Technology Demonstration



Commercial Demonstration



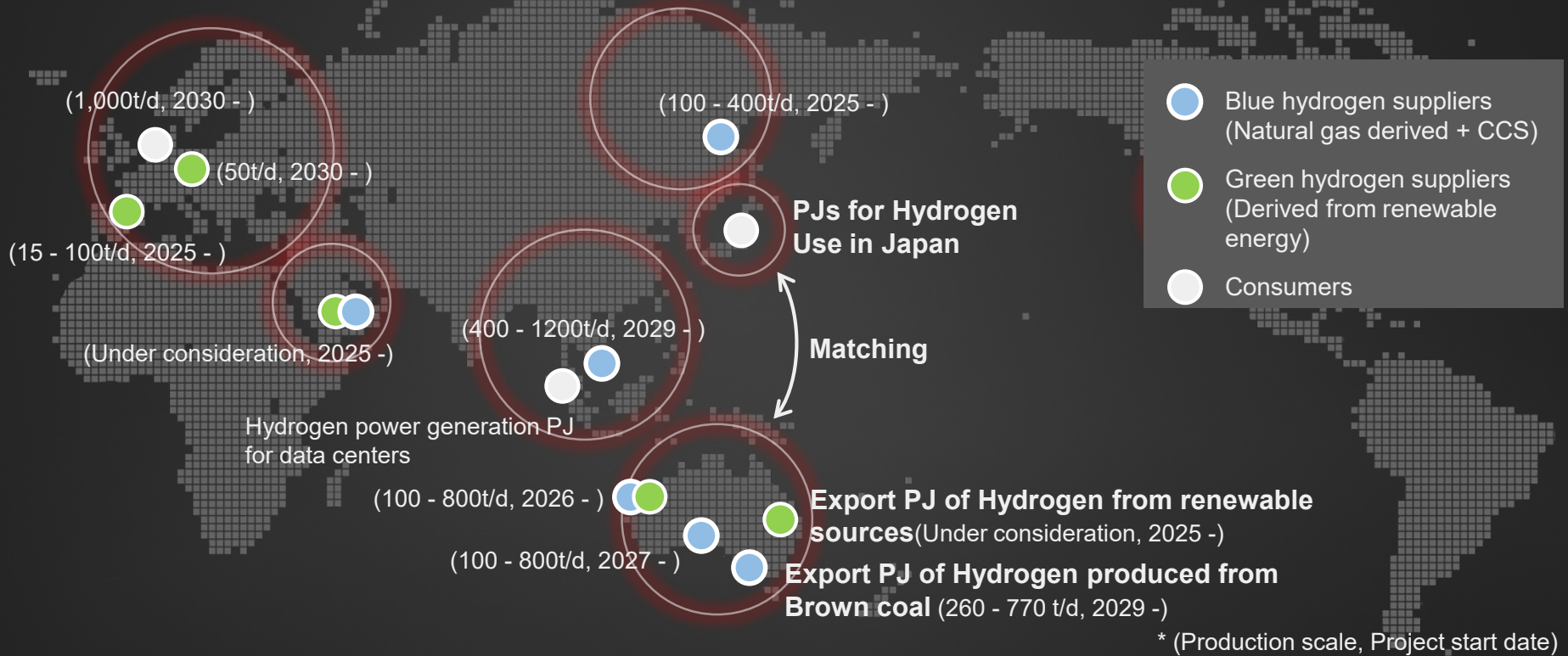
Full-Scale Commercialization

2021

2025

2030

Hydrogen Businesses: Accelerating Business Structuring under Carbon Neutral Trends

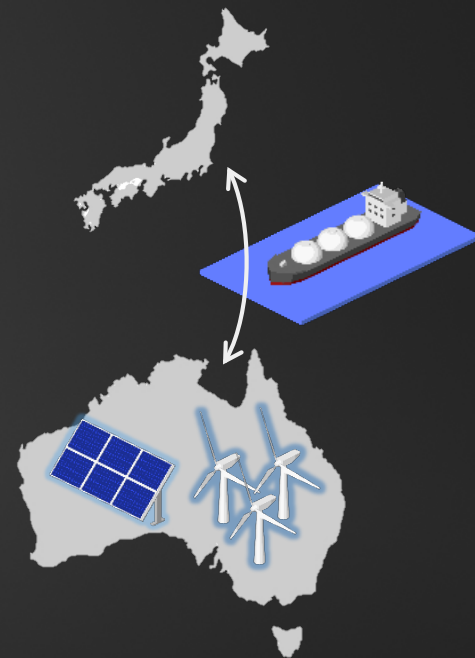


World-Leading Commercial-Scale Green Hydrogen Project

Production and liquefaction of hydrogen from renewable energy sources and import to Japan

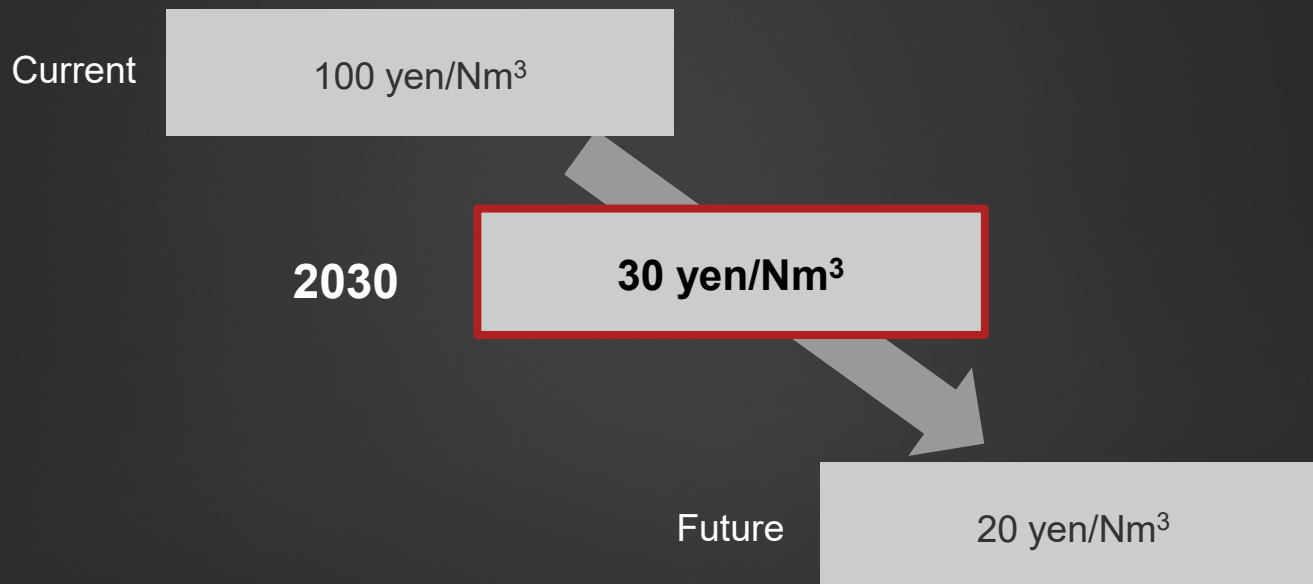
- MOU concluded with **Fortescue Metals Group**, a major iron ore producer, and **Iwatani Corporation** (December, 2020)

Currently implementing FS with each company towards a **demonstration in the mid-2020s**



For Further Full-Scale Diffusion of Hydrogen

Realization of the same cost level as gasoline and LNG



Technology demonstration for commercialization of the Hydrogen Supply Chain

The development of the technologies required for commercialization will be completed by the end of fiscal year 2022



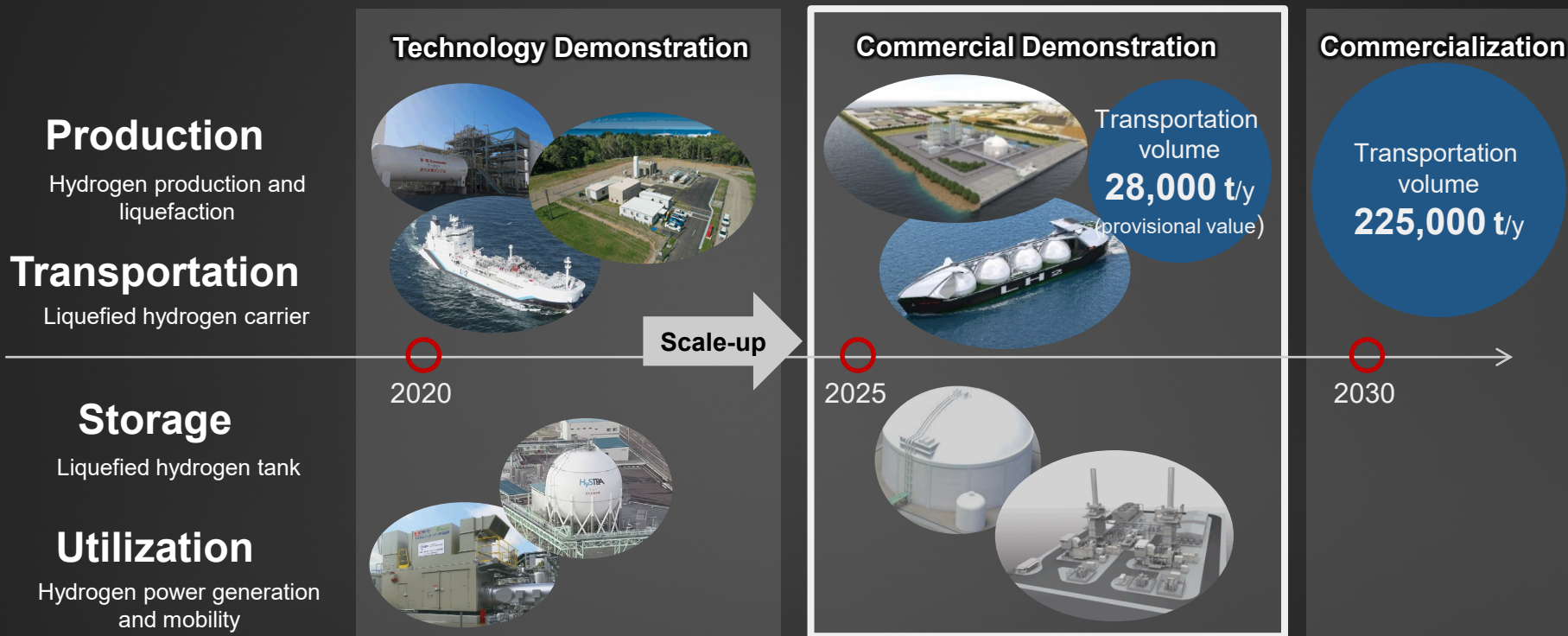
Liquefaction and Loading Terminal
(50,000 m³ x 1 hydrogen tank)



Liquefied Hydrogen Carrier
(40,000 m³ x 4 hydrogen tanks)

* AiP (approval in principle) Obtained from ClassNK for Cargo Containment System from ClassNK. (April 2021)

Steps in Large-Scale Use / Large-Scale Transportation of Hydrogen



Hydrogen Power Generation

Several projects are currently progressing, including a hydrogen power generation plant* for Seibu Oil Co., Ltd., which will start operations in **August 2021**



Power generation output: 34,000 kW
(Hydrogen mixed combustion 20 - 50%)

*By-product hydrogen generated during the refining process of petroleum products is used for this project.

Expansion of Hydrogen Fuel into Marine Sector

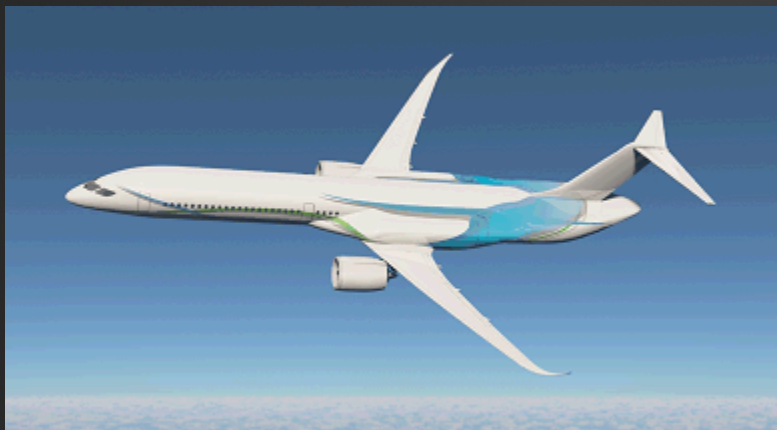


Suitable engine for higher output
“Reciprocating Engine”

In response to the trend to reduce greenhouse gases in international shipping, demonstration of marine hydrogen gas engines will begin in **2025**

A joint venture established with Yanmar Power Technology and Japan Engine Corporation to expand the product lineup and develop a competitive business in response to global demand of 8,000 units a year

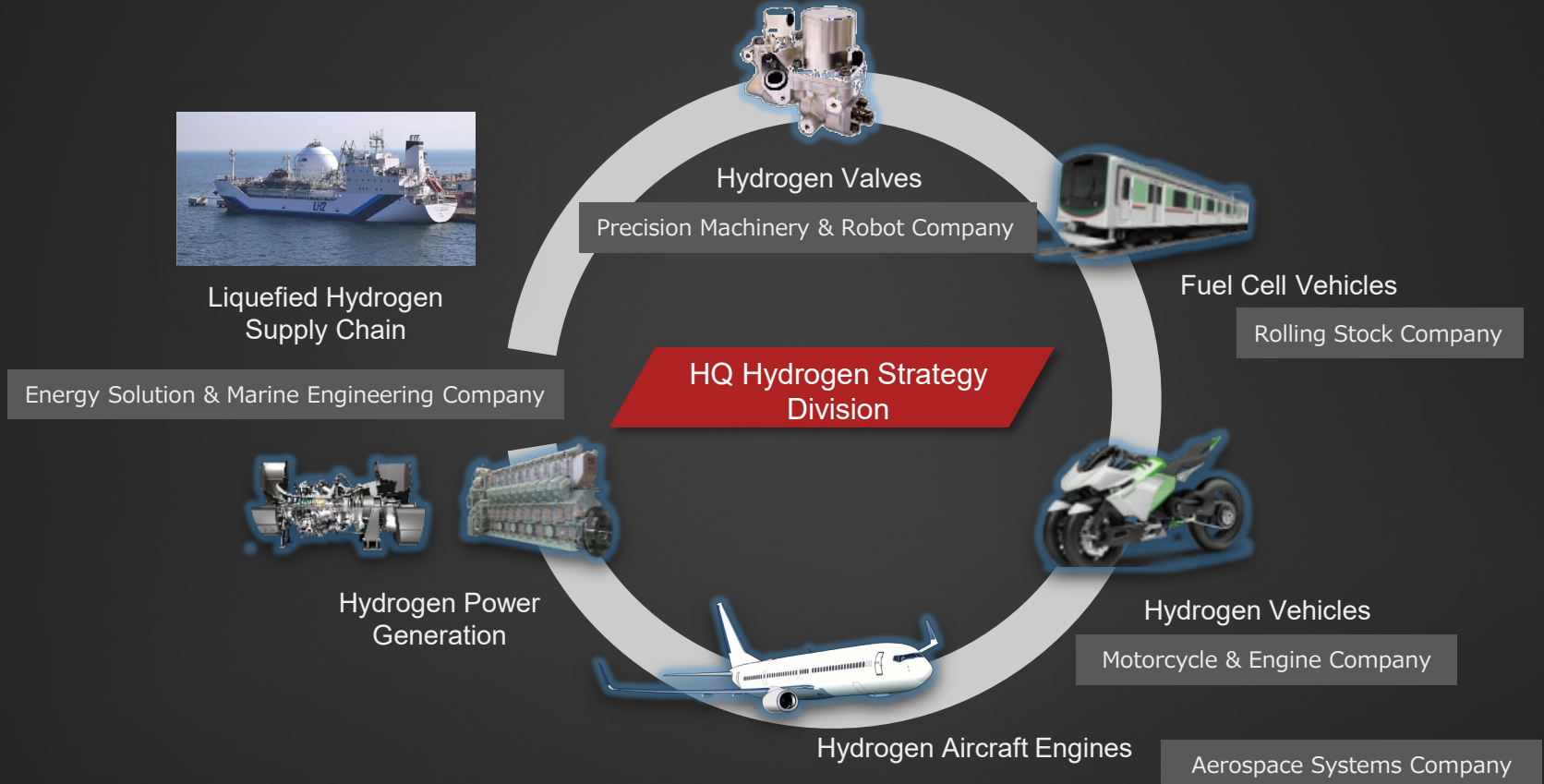
Expanding Hydrogen Fuel to **Aircraft Field**



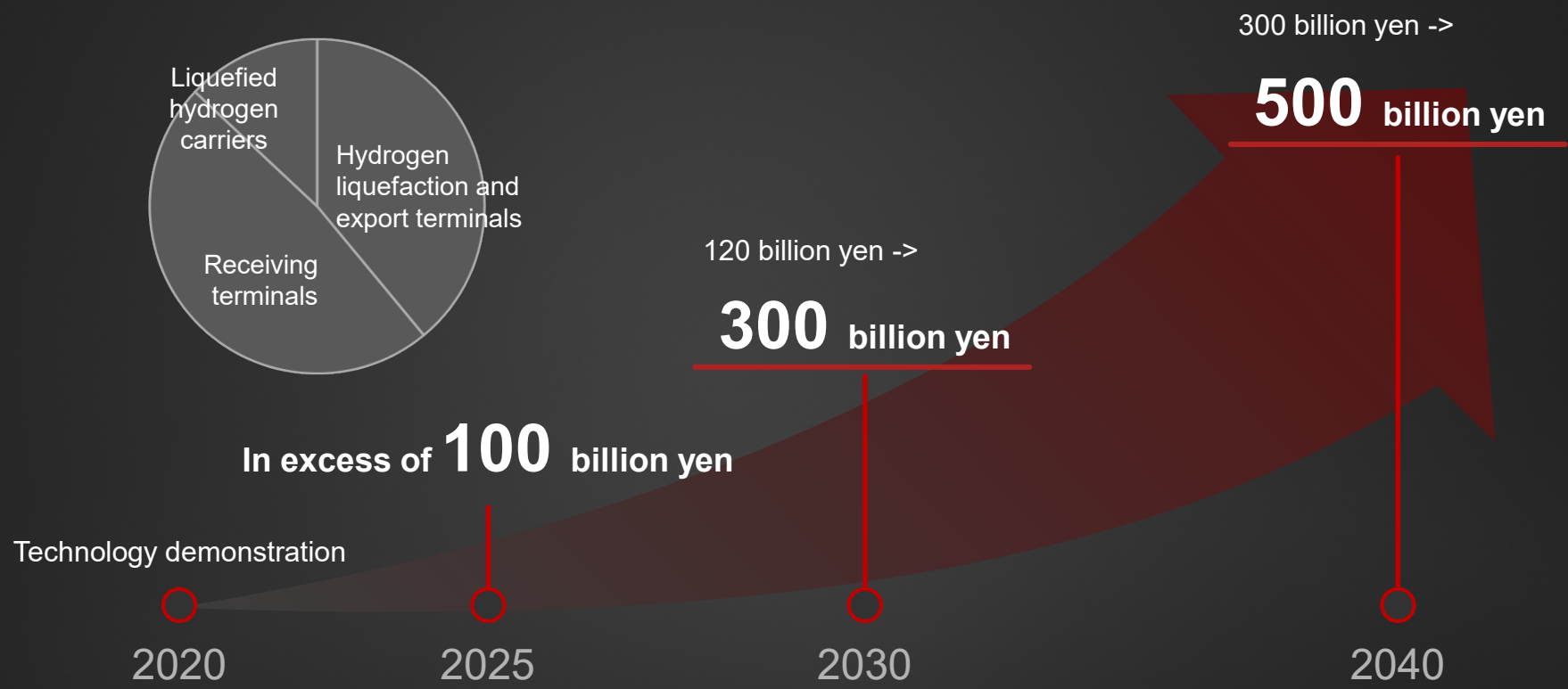
Participating in the development of a hydrogen-powered aircraft to significantly reduce greenhouse gas emissions
(To be launched in 2035 or later)

Leading the development of all core technologies for liquefied hydrogen fuel tanks, hydrogen fuel supply systems and hydrogen engines.

Further Development of Hydrogen-Related Products / Businesses

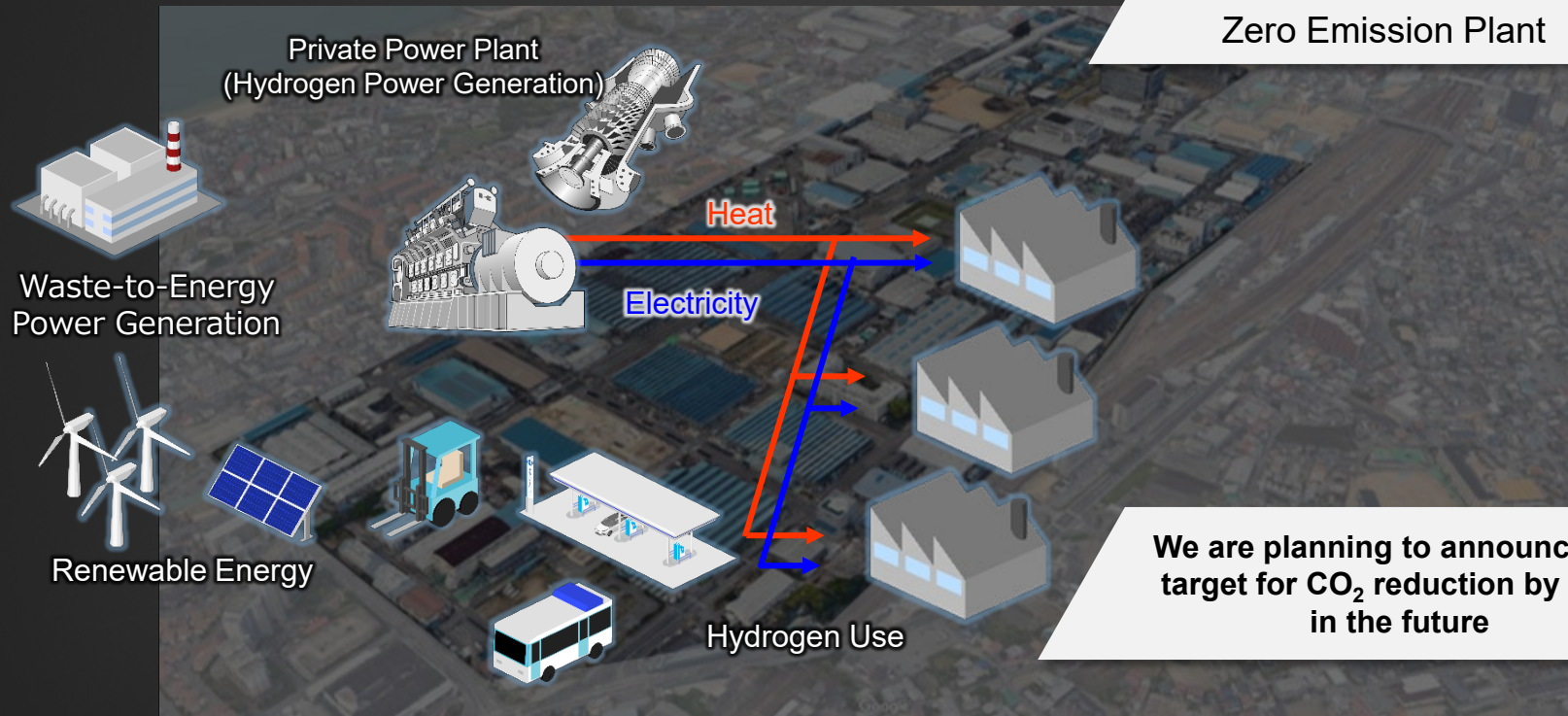


Scale of Hydrogen Businesses (Upwards revision from plan reported last year)



Carbon Neutral Initiatives at Our Group

Reducing CO₂ emissions in our own plant



A Safe and Secure
Remotely-Connected Society

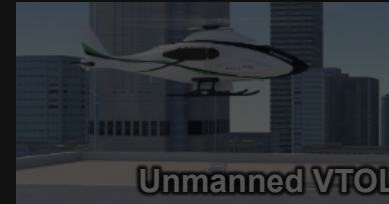
Business scale
200 billion yen

Business scale
600 billion yen

Group Vision
2030 initiatives
For the Future



Near-Future Mobility



Energy and Environmental Solutions



2021

2025

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- Decreasing birthrate and aging population
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Medical / Healthcare Business

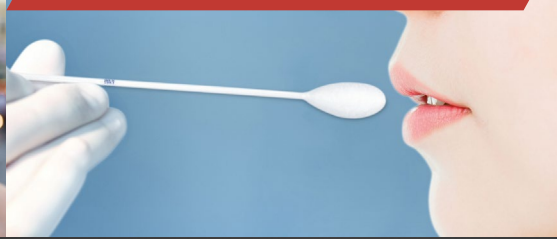


Automated PCR Testing Services (quick, continuous, highly sensitive and accurate service)

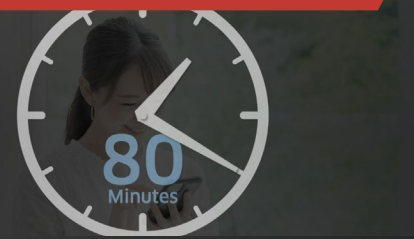
Reservation



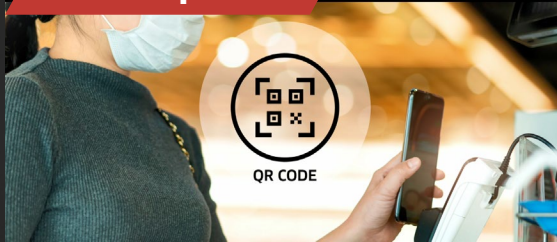
Sample Collection



Result Notification



Reception



Inspection



Collaboration with Fujita Health University

- PCR testing center at Fujita Health University launched (February, 2021)
- 100% concordance rate was confirmed in accuracy evaluations by Fujita Health University, a system for 2,500 tests per day established



Collaboration with Kyoto University

- A joint research started with Kyoto University and Sysmex (April, 2021)
- The usefulness of social implementation of large-scale PCR tests using an automated PCR test system will be evaluated in the future



Development of Automated PCR Testing Business

Kansai International Airport



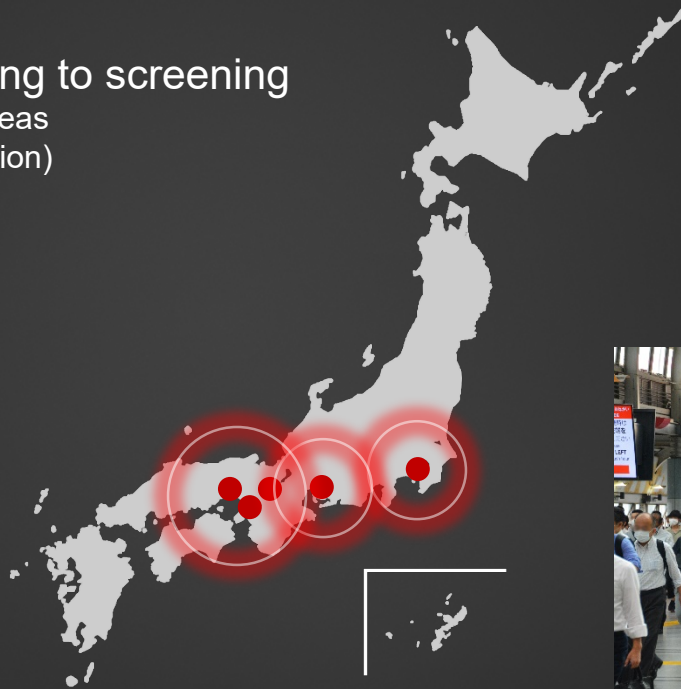
The first PCR test service for **international departures** at an airport in Japan
(Established May 2021)



Nationwide development of PCR test service

Development of Automated PCR Test Service Business

Development from monitoring to screening
in cities of urban areas
(social implementation)



Development of Automated PCR Testing Business



- Implementation of tests at international airports, issuing negative result certificates
- Contributions to the recovery of flight demand and the resumption of people coming and going

Japan's First Automated PCR Testing Business Using Our Robots Started

Development of testing business at airports, in cities and at event venues, contributing to large-scale demand for tests

In fiscal year 2021, a system established that can implement up to
125,000 tests a day

As of June 2021, we have established a system that can implement 12,500 tests a day

Healthcare / Robotic Assisted Surgery System

Medicaroid Corporation

“hinotori™” the first robotic assisted surgery system made in Japan

About 20 clinical cases were all treated successfully by May 2021 and hinotori™ was evaluated highly by surgeons



Demonstrations of **remote surgery** are also progressing steadily

- Succeeded in a demonstration of remote surgery at a **distance of approximately 30 km using a dedicated high-speed line (Animal experiments)**
- Moreover, in April, the world's first demonstration experiment of **remote control via commercial 5G** started

Medicaroid Business Outlook



Fiscal year 2030
Net sales

100 billion yen

Expansion of product portfolio

(Cooperation between a robotic assisted surgery system and a robotic operating table, etc.)

Overseas development
(Europe and America)

Expansion of targeted
clinical departments
(Gastroenterological,
gynecological and respiratory surgery)

Domestic launch
(Urological area)

Offering New Ways of Living and Working



Establishment of Joint Venture with Sony Group Corporation (May 21, 2021)

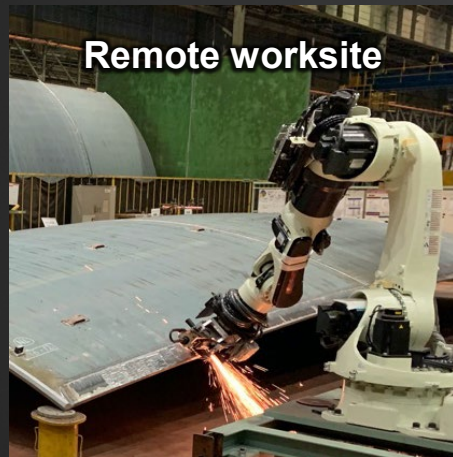
A new company that will carry out remote robot platform business to be established this summer



Establishment of Joint Venture with Sony Group Corporation (May 21, 2021)

- Reducing the burden from hazardous and heavy work
- Creating opportunities for social participation for many people who cannot go to the worksite, etc.

Providing a “platform” to connect “people who are willing to work with businesses that are looking for labor”.



Group Vision
2030 initiatives
For the Future

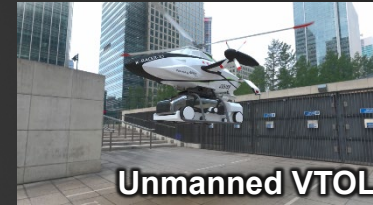
A Safe and Secure
Remotely-Connected Society

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Near-Future Mobility



Energy and Environmental Solutions



2021

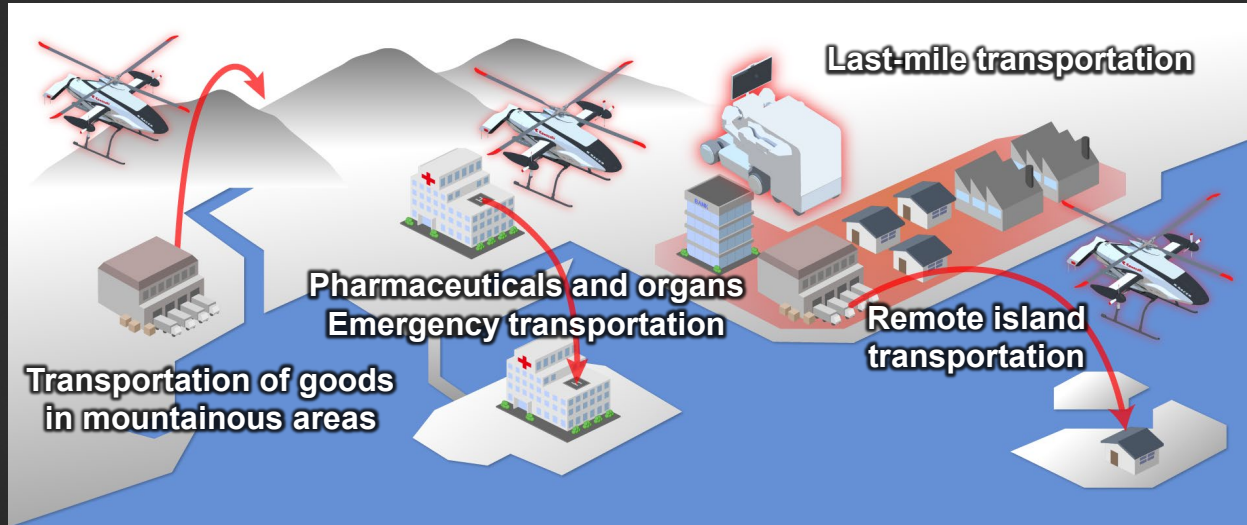
2025

2030

- Decreasing birthrate and aging population
- Remotely-connected society
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Towards Social Implementation of Mobility Near Future

- Building strategic partnerships in the logistics area from fiscal year 2022, aiming to achieve social implementation in regional cities, commercial facilities, hospitals, etc.
- Participating in moves towards deregulation and institutional development in regard to the remote and autonomy of mobility



Last-Mile Innovation Using Delivery Robots

Solutions using delivery robots



Drive fast where safe



Support comfortable living



Carefully carry cargo over steps



Automatically recognizes / avoids obstacles.



Communication available



Innovation in Air Transportation Using VTOL Drones

Starting from the provision of logistics services suitable for medium-volume frequent transportation
(flight tests scheduled for later this year)



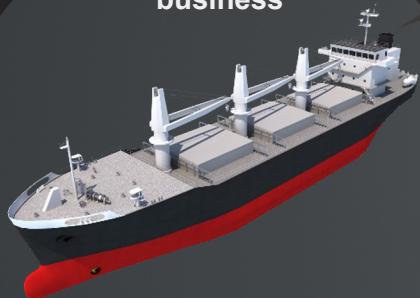
カワる、
サキへ。

Changing forward

カワる、

Energy Solution & Marine Engineering Company Integrated

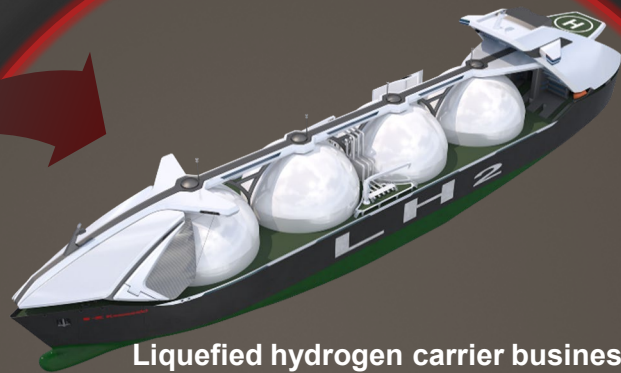
Ship and marine business



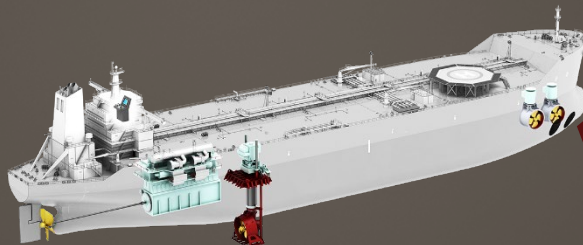
Ship and offshore structure business
(excluding Liquefied hydrogen carrier)



Collaboration with a Chinese joint venture and other companies

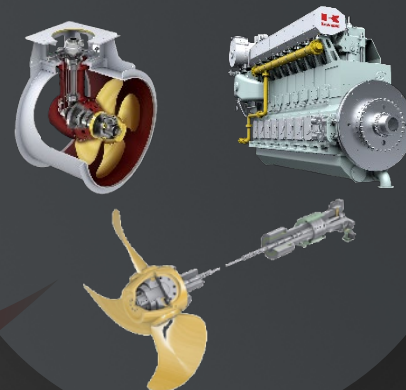


Liquefied hydrogen carrier business



System engineering business
Core component business

Marine propulsion business



Energy Solution & Marine Engineering Company

- The new company will promote hydrogen related business, and core component engineering business
- For the time being, Sakaide Works will build LPG carriers, including ammonia transportation with a track record from the past
- Integrated operation of Sakaide, Kobe and Harima Works



LPG fueled
LPG carrier / Ammonia carrier



Business Portfolio Reform

- ❑ Agreement with Hitachi Zosen to Establish a new company in tunnel boring machine business (January 2021)
- ❑ Completion of the merger of ship repair business with Mitsui E&S Shipbuilding & Engineering Co., Ltd. (March 2021)
- ❑ Establishment of Kawasaki Green Energy, Ltd. to handle low-carbon, decarbonized and distributed power (April 2021)
- ❑ Transfer of nuclear power business to ATOX (April 2021)
- ❑ Conversion of Kawasaki Thermal Engineering Co., Ltd. into a wholly-owned subsidiary (May 2021)



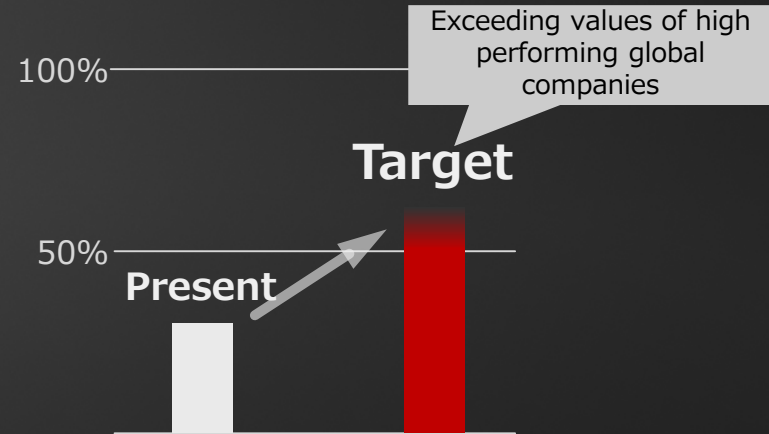
Personnel System Reform

The first step in reform of awareness and culture towards becoming a company that achieves sustainable growth

The executive compensation system will emphasize the concept **“Pay For Mission”**

In addition, the company will gradually launch measures to reform the corporate culture, utilize DX, and realize employee careers.

(Aim) **To increase the percentage of active employees**
who are highly motivated and given the right environment

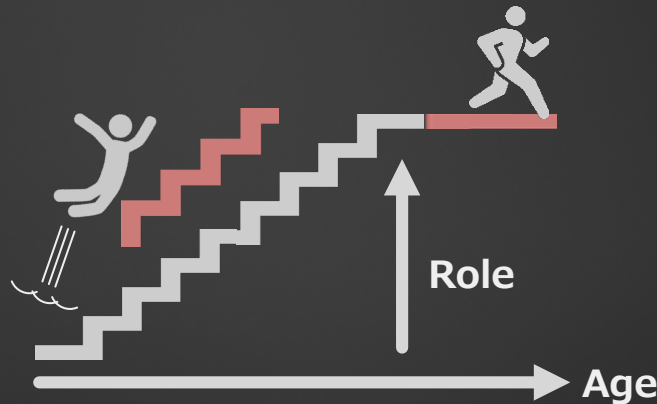


Progress of Personnel System Reform

The concept of the new personnel system is “Challenge and Commitment”

”Challenge”

- Appointment of talented young employee to important duties / position
- A system that allows veteran employees to continue to be active regardless of age



Personnel System Reform

(Examples of specific initiatives)

More than 50 employees selected from all companies to participate for a “President’s Project Division,” which is promoting PCR testing business and near-future mobility, and will pursue synergies that transcend the companies’ boundaries



The division contributed to the commercialization of PCR testing business in a short period of time

Business Topics

Rolling Stock Business

- A new company, Kawasaki Railcar Manufacturing Co., Ltd. to be established on October 1, 2021
- A Domestic and Asian Division and North American Division to be established to clarify business responsibilities
- “R211,” a large-scale project worth about 400 billion yen in total * is now underway
- Further improvement on productivity at North American bases and maximize revenue from large-scale projects

(We will establish a company-wide North American Business Task Force to collaborate with the motorcycle and aerospace businesses in North America)

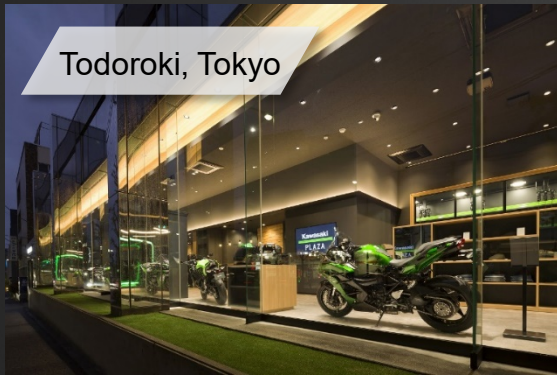


The “R211” subway for the New York City Transit Authority, being manufactured at Lincoln Plant

* If both options are exercised

Motorcycle & Engine Business

- A new company, Kawasaki Motors, Ltd. to be established on October 1, 2021
- Leading the market in close contact with customers, we have driven the Kawasaki brand to the top domestic share for the third year running*¹
- Cultivated a new customer base by offering stores and high quality lifestyles to be enjoyed with the five senses



Sales of large motorcycles*²
increased **80%**
Ratio of customers in their
20s increased **60%**

(Both figures in comparison to
FY2017)

*1: 251 cc or more

*2: 401 cc or more

We have opened 77 Kawasaki Plaza stores nationwide since 2017 (as of April 2021)

Motorcycle & Engine Company Business (North American Market)

- Off-roading and leisure activities have taken root as a new lifestyle, and the market continues to expand



Immensely popular in the U.S.
for off-road racing and leisure
KX Series



Side x Side, which are selling well in America
TERYX KRX 1000

Motorcycle & Engine Company Business (Business Alliances with Other Companies)

- Proactively and aggressively promote cooperation and alliances with other companies



Jointly established a motorcycle manufacturer to support revitalization and launched new models with bimota an Italian luxury motorcycle manufacturer



Accelerating growth of off-road vehicle business in the U.S by utilizing KYMCO's (Taiwan) development and production resources

Motorcycle & Engine Company Business (Efforts Towards Decarbonization)

- In consideration of changes in the social environment, we will accelerate the development of electric motors, hybrids and hydrogen fuel handling and strengthen cooperation within the industry



EV Project
(Proposing EVs unique to the company)

Motorcycle & Engine Company Business (Efforts Towards Decarbonization)

- In response to growing environmental awareness, we will accelerate development of electrification, hybridization, and hydrogen fueling and strengthen collaboration within the industry



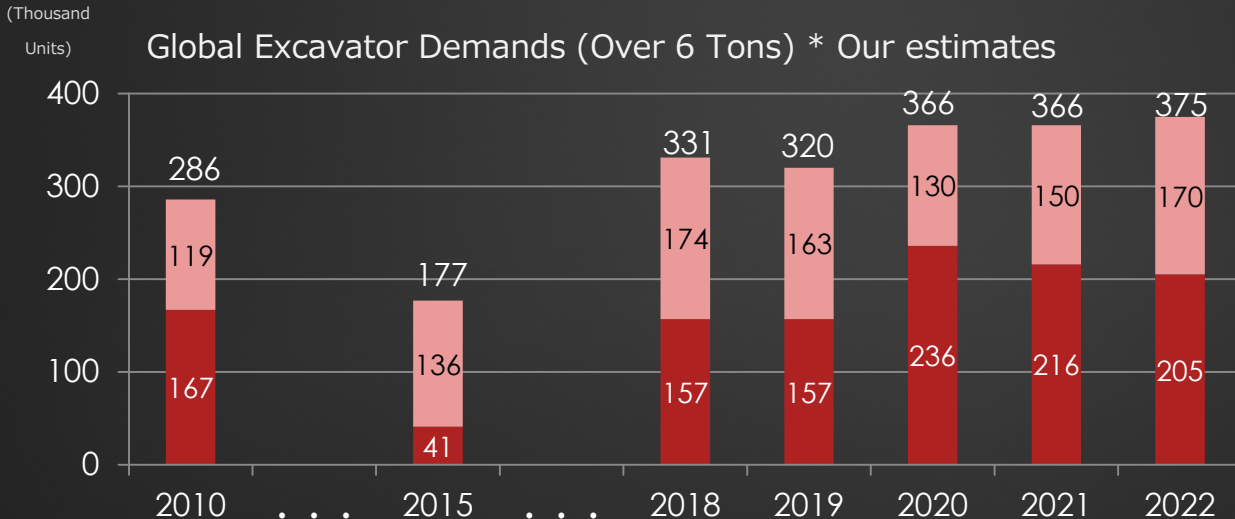
RIDEOLOGY
MEETS **HYBRID POWER**



Hybrid Motorcycle

Precision Machinery Business (Hydraulic Components)

- China's excavator market grew significantly in FY 2020 and is expected to decline slightly in FY2021
- Markets outside of China have begun to recover significantly in the second half of FY2020 and are expected to recover to pre-pandemic highs in FY2022
- Overall, we expect the markets to remain strong in FY2021



■ Other
■ China

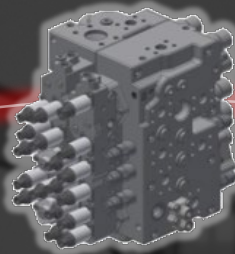
Development / Launch of New Hydraulic System for Construction Machinery

- **CO₂ emissions are reduced by 27%** through the integration of highly efficient hydraulic equipment and the latest electronic control (Compared to our company's products)
- Apply ICT/IoT technology to facilitate operation and support future automation and unmanned operations

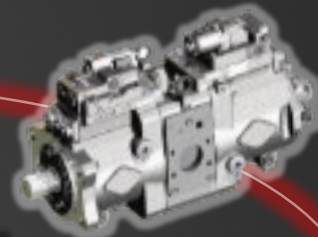
High Performance Motors for Swing Applications
M5X Series



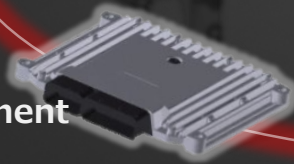
Electronically Controlled Hydraulic Control Valve
KMx Series



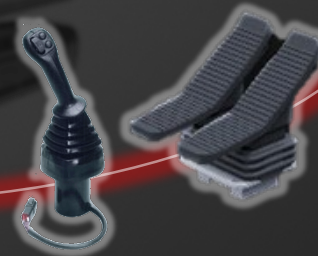
High-Efficiency Electronically Controlled Hydraulic Pump
K7V Series



High Performance Construction Equipment Controller
KC-MC-20



Electronic control type Remote Control Unit
ERU2 / ERUP Series

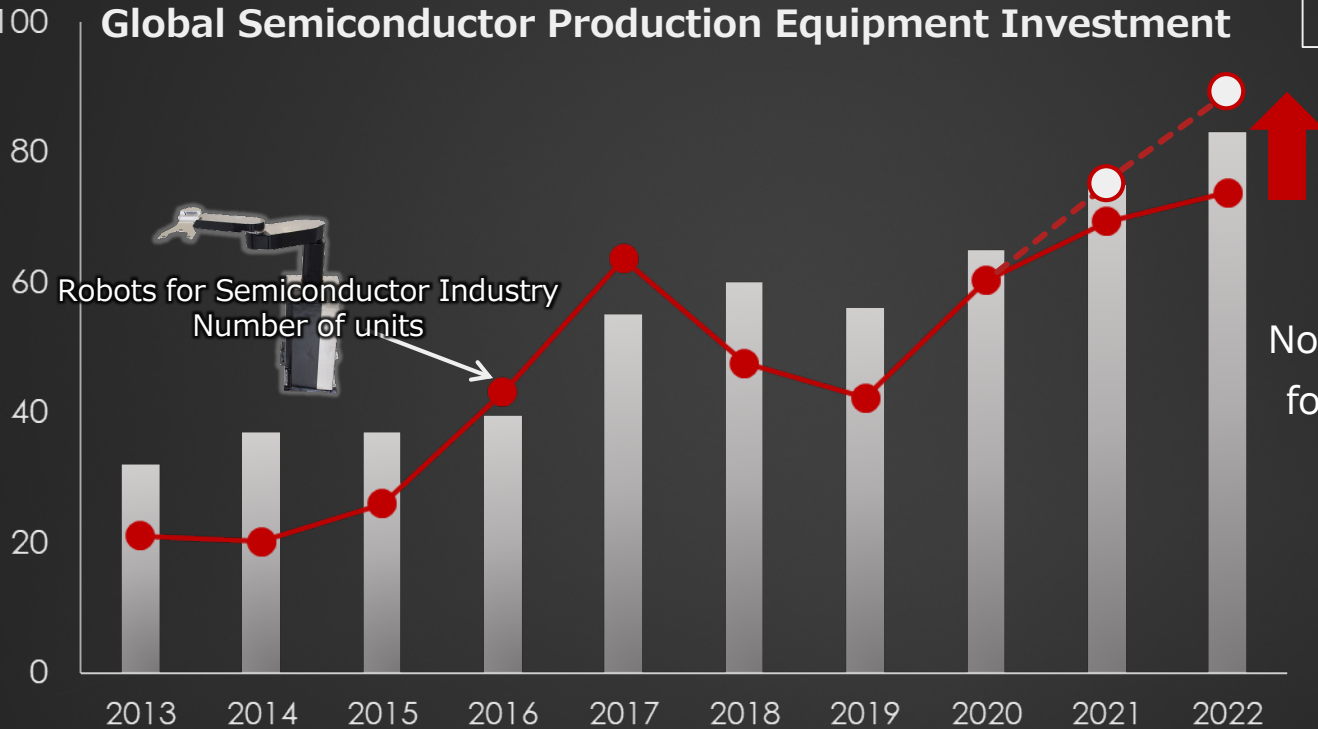


Robot Business (Robot for Semi-Conductors Industry)

Orders expected to increase due to rapid recovery in the semiconductor market

US\$ Billion

Global Semiconductor Production Equipment Investment



No.1 Global Share for Robots for semi-conductor industry

56%

FY2020

※Prepared by Kawasaki based on data from SEMI and Fuji Keizai

Robot Initiatives and Evolution Over Past Few Years

Coexistence

2015



“duAro” dual-arm SCARA robot able to collaborate with humans

Remote Collaboration

2017



“Successor” remote collaboration robot system

2021



Remote robot platform (New company established)

New Evolution

2020



“hinotori™”
A robotic assisted Surgery system

2023



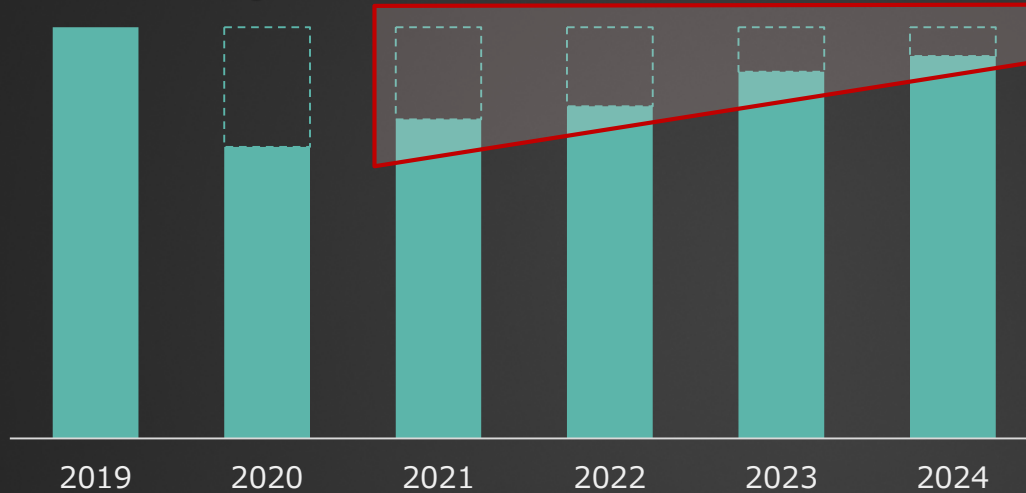
Delivery robots



Humanoid robot

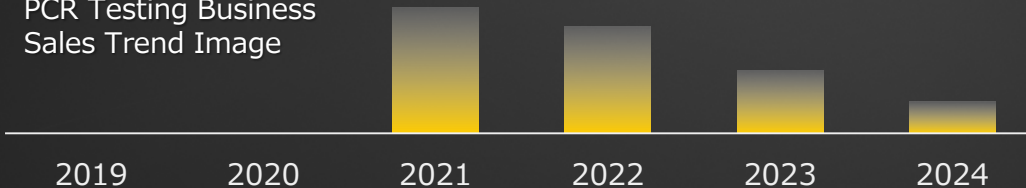
Aerospace Systems Business (Future Outlook)

Aerospace Systems
Sales Trend Image



Demand for PCR tests during downturn in aerospace system business : **High**

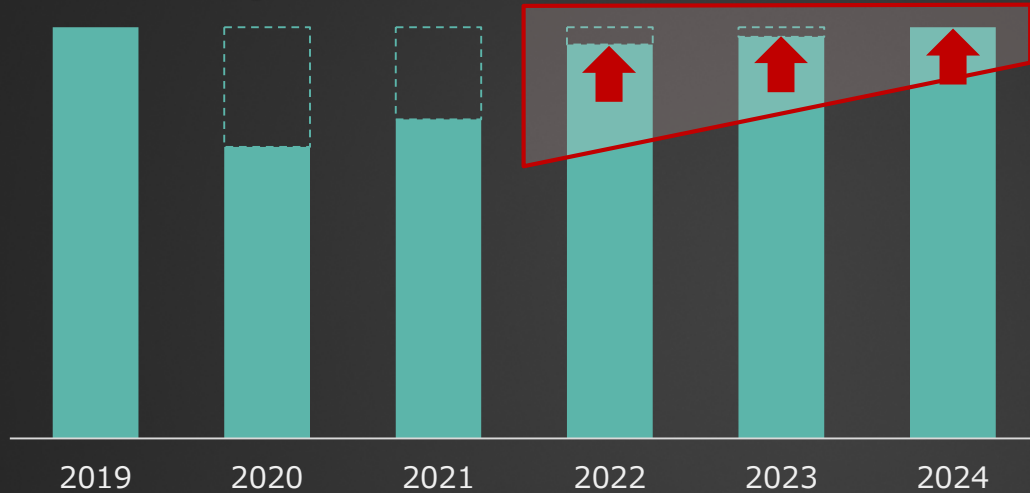
PCR Testing Business
Sales Trend Image



PCR testing business covers aerospace business

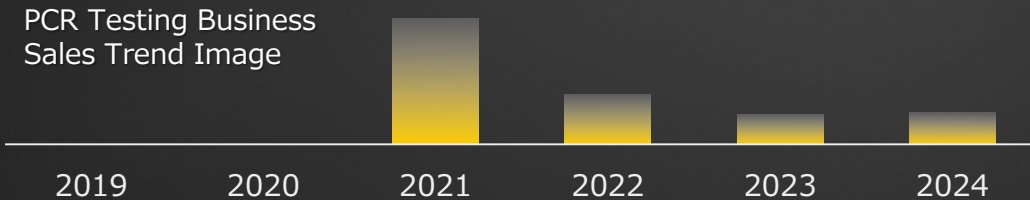
Aerospace Systems Business (Future Outlook)

Aerospace Systems Sales Trend Image



In case of rapid recovery in airline demand due to widespread vaccination

PCR Testing Business Sales Trend Image



Demand for quarantine inspection robots at airports will remain at a certain level

Large scale PCR test system

- Respond flexibly to demand fluctuations by utilizing commercial aircraft production resources
- Taking advantage of the synergy between commercial aircraft production technology × robots × plant businesses



FY2021 Outlook

- We will overcome the COVID-19 pandemic and get back on a growth trajectory

	Fiscal year 2020 results	Fiscal 2021 outlook	Compared to previous fiscal year
Orders received *	14,024	14,800	+ 776
Net sales *	14,884	15,000	+ 116
Operating profit *	-53	300	+ 353
Ordinary profit *	-28	200	+ 228
Net income attributable to owners of parent *	-193	170	+ 363
Dividend (per share)	0 yen	30 yen	+ 30 yen

* 100 million yen

- Aircraft business continues to be in a difficult situation, but it has improved greatly due to thorough reductions in fixed costs.

* Operating profit +236 (-316 -> -80)

- Independent management of vehicles based on company splits

* Operating profit +75 (-45 -> +30)

- Sales of motorcycles increased encouraged by the popularity of off-road vehicles

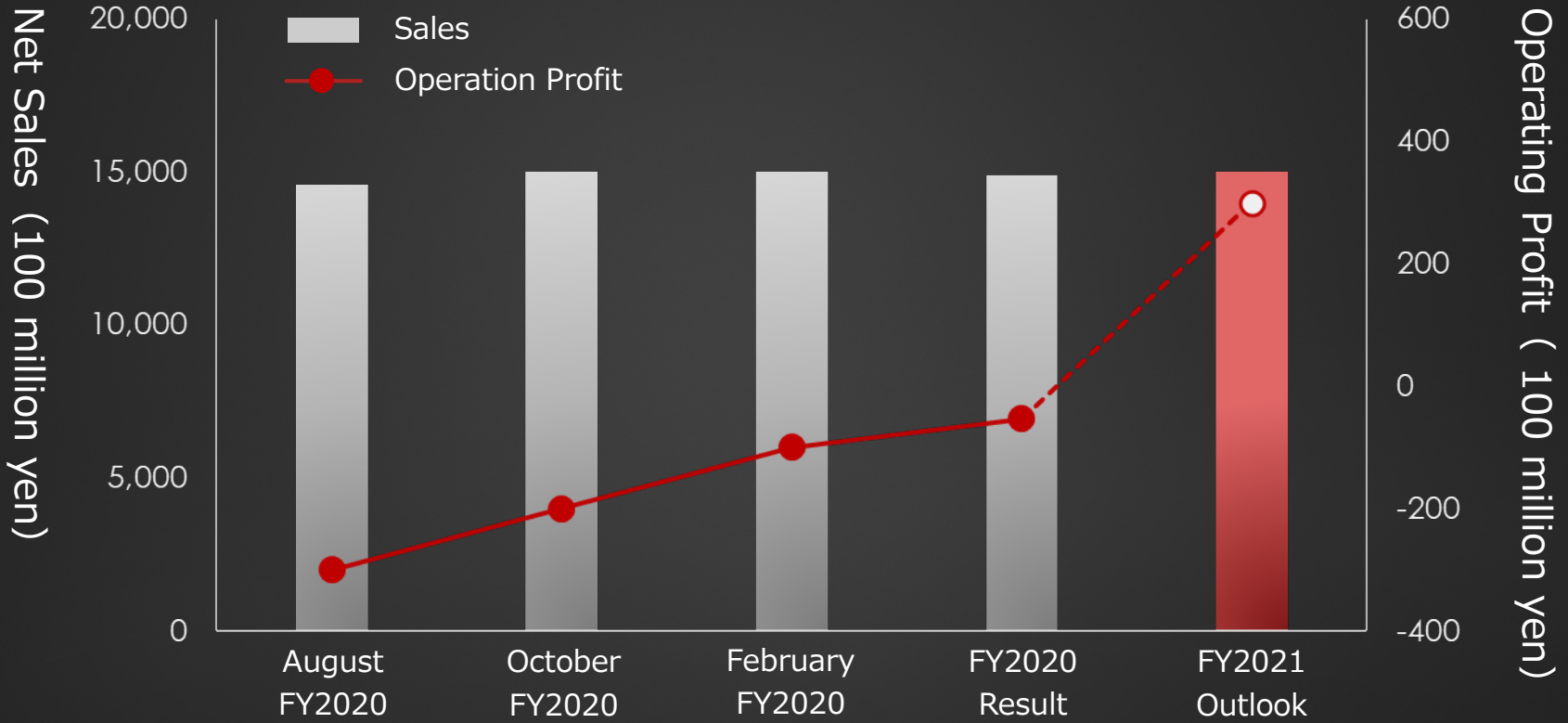
* Operating profit +53 (+117 -> +170)



Return to profitability and dividends in FY2021

* Profit and Loss from automated PCR testing business is not included

Forecast for FY2021 - Overcoming the COVID-19 pandemic and returning to a growth path



Last November, we announced "Group Vision 2030 Business Direction"

Realize the vision by focusing on "**Market-In**" thinking and "**Speed**", and focus on "**Execution**" to improve current profits and cash flow

We will continue to pursue best practices throughout our Group to ensure steady and speedy progress.

つぎの社会へ、 信頼のこたえを

Trustworthy Solutions
for the Future