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Linking the World, Connecting People.
Yaskawa Group Newsletter
W.W.Y. - World Wide YASKAWA -

Sep. 2021

No.29

YASKAWA

YASKAWA NEXT

This part of each issue will be reserved for top management of Yaskawa Electric to send a message to all employees of the Yaskawa Group.

Let's respond flexibly to various changes while being aware of overall optimization!

All member of the Yaskawa Group, this is my message for the start of the second half of FY 2021.

Although the COVID-19 is still raging around the world, and the situation remains unpredictable, the steady progress of global vaccination has enabled the economic environment surrounding our manufacturing industry to regain stability. At the same time, the world faces increasingly serious climate and social crises, accelerating the efforts for achieving sustainable development goals (SDGs) and global warming countermeasures to meet and prevail against these challenges. We at the Yaskawa Group are committed to doing our part. At the start of this fiscal year, we announced the Sustainability Policy to accelerate our efforts to realize a sustainable society and increase corporate value based on management principles. We must strengthen our global efforts in line with this policy.

As for business conditions in the first half of the fiscal year, capital investment in the manufacturing industry as a whole recovered strongly thanks to progress in global recovery from the COVID-19. Our first-quarter orders hit a record high and orders continued strongly in the second quarter—similar to the performance peak we saw in the first quarter of 2018.

In China region, in addition to making progress toward normalization of production activities in the manufacturing industry as a whole, we welcomed active investments in new infrastructure-related projects. Economic activity has gradually recovered in the other regions, and the demand for automobiles, semiconductors, and electronic components has remained high. However, production expansion has not progressed as planned due to a shortage of semiconductors and other parts supply, so the revenue situation remains severe.

Next, I would like to highlight each division.

(M) In China, the demand for 5G related —including smartphones—has increased, and also the demand for new energy products, such as lithium-ion batteries and solar power generation panels expanded. Moreover, global demand for semiconductors and electronic components increased globally, so the revenue and profit were strong.

(V) The revenue and profit increased due to an increase in infrastructure-related investment, mainly in cranes in China, and increased capital investment in line with the market recovery in Europe and the United States.

(R) In the automotive market, which is the main market, capital investment recovered significantly in China, Europe, and the United States, and demand for EVs (electric vehicles) also increased. Moreover, investments in the general industrial fields, such as logistics, food, and 3C (consumer, computer and communication devices) were made actively all over the world , to expand further upgrades and automation. In addition, solid sales of semiconductor robots have led to strong growth in revenue and profits year-on-year.

(K) Revenue and profits for water and sewerage systems in Japan and electrical equipment for large-scale wind turbines in Europe are recovering thanks to the normalization of the COVID-19.

As a result of these generally favorable conditions, we expect revenue and profits to increase in the first half of the fiscal year. I would like to thank all members of the Yaskawa Group for the understanding, cooperation, and efforts. Thank you very much.

Our surrounding environment has changed drastically and rapidly because of COVID-19. Our living environments and ways of working have changed significantly too. Nevertheless, the Yaskawa Group must work together flexibly and speedily to realize Vision 2025. Yaskawa's digital transformation (YDX) which we are promoting will accelerate the process of standardizing operations based on coordination of information on development, production, and sales. In July, we started unifying our global item codes such as products, half finished products, parts, and materials, and will accelerate their use for

approximately 70 consolidated companies. In this way, we can strengthen the foundation for digital management that will become the corporate culture (DNA) of the Yaskawa Group. As we strengthen our global development, production, and sales capabilities, the Yaskawa Technology Center (YTC), which integrates the Yaskawa Group's development and production technology functions, will enter full-fledged operations in the second half of the fiscal year. Yaskawa Group will work together to strengthen its development capabilities centering YTC and accelerate their thorough application. In production, we will respond to increased orders by increasing production capacity through acceleration of the expansion of Y's Production 25 to our global production bases. We will maximize profits by connecting revenues with the order backlog that has increased due to the rapid increase in demand in the first half of the fiscal year.

In the past, we have experienced a rapid rise in orders and overcame it many times. We have also seen a sudden change in the environment as an opportunity to expand our market share in AC servo business. We should cooperate with our global production to global sales building on our experiences and ensure that Yaskawa provides the products to our customers timely with the appropriate volume. We will continue to maximize orders in those global markets where we expect high levels of investment, such as the EV and semiconductor-related markets. At the same time, we will drive future growth by capture the rapidly expanding lithium-ion and other secondary battery markets steadily leveraging the Yaskawa Group's comprehensive strengths.

Through the novel coronavirus disaster, we learned that we must pay attention not only to the impact of the disaster, but also to the various issues that could be caused by unforeseen events. It goes without saying that in order to respond flexibly to the various changes that will occur in the future, it is important not only for the company but also for each and every one of you to manage yourself and take action. The start of the second half of the fiscal year is a turning point. Please be aware of our overall optimization efforts, reconfirm each role, and act. Our future is bright. Move forward with me!

Abbreviation of Organization and Facility Names:

(M) : Motion Control Div.
(V) : Drives Div.
(R) : Robotics Div.
(K) : Environmental & Social Systems Div.

Notes:
1 The positions and posts indicated are based on personnel organization information of FY 2021 first half.
2 See the back cover for company name abbreviations.

H. Ogasawara

Hiroshi Ogasawara
Representative Director
President,
YASKAWA Electric Corporation

YASKAWA NOW

YASKAWA NOW brings you all the hottest topics from the Yaskawa Group.

Asking project members at (ICT)

What is the Material Code Unification Reforming the Yaskawa Group's Corporate Culture (DNA)?

In fiscal 2020, our President's policy was "building a foothold for digital management through the promotion of YDX projects" and we have been working on this as the "First Year of YASKAWA Digital Transformation (YDX)."
In this second year of YDX, we have continued centralizing business information and begun doing the same for global data on technology, production, and sales. In July, we launched a new numbering and operation system to unify the material code which is the most essential phase. At the time, we asked with (ICT) about the aim and importance of centralizing our material codes globally.

Shoichiro Shimoike
Deputy General Manager,
ICT Strategy Promotion Div., (YEC)

——Since the FY 2020, we have been working on code unification for our products, customers, global chart of account (GCoA), organizations, and other information to centralize our global data. Can you tell us more about this?

We can now grasp key management information in a timely manner, such as orders, sales, and profits for the 67 consolidated subsidiaries of the Yaskawa Group. In addition to the fact that we now have a real grasp of the business situation, consolidated financial results for the fiscal year and the interim period were revealed in two weeks, and quarterly financial results were revealed in one week, which is much speedier than before. This year, the second year of YDX is accelerating our efforts to centralize global data on technology, production, and sales, beginning with the critical step of unifying the material codes.

——What is the material code?

Every Yaskawa products, parts, half finished products, or raw material has a unique identifying number called the material code. In the past, each site issued and managed its own codes, so we ended up with multiple codes for the same item within the Yaskawa Group. This duplication made sharing information across sites problematic and inefficient. Our efforts for standardization of global material codes have enabled us to manage approximately 400,000 unique codes centrally for 67 companies of the Yaskawa Group over the world.

——How have the material code numbering and management changed since July?

The material code numbering system that had been in operation up until now has been discontinued, and now we have begun centralized management of numbering and operation using a new system that operates globally. In the past, each company and department was able to issue a code at their own discretion, but now any codes need to be approved before issuing and managed by the head office. This allows us to suppress the occurrence of multiple codes for the same item and the generation of unused codes.

——Was it really necessary to unify the material codes within the Yaskawa Group?

Yes, for several aims. The first is to improve management efficiency. We need to make faster, better-informed business decisions by consolidating the global information on production, sales, and technology. The second is business standardization. The 67 companies and departments need to standardize as much as possible to allow for seamless interactions without inefficiency and confusion. The third is to improve operational efficiency by eliminating the extra work caused by using duplicate codes. Management efficiency cannot be improved without standardization.
Using different codes for the same item caused the Yaskawa Group to suffer from a variety of losses, including work duplication when registering information in the system,

Abbreviation of Organization and Facility Names:
(ICT) : ICT Strategy Promotion Div., (YEC)
(Naisei) : Internal Control Sect. Auditing Div.,(YEC)
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2 See the back cover for company name abbreviations.

(ICT) Global Code Management Group. [From left: Mr. Ishibashi (ICT), Mr. Goto (Naisei), Mr. Yamaguchi (ICT), Mr. Anzai (ICT), Mr. Okamura (ICT), and Mr. Matsuyuki (ICT).]

increased search time, and increased work time spent on inventory management. The simple solution of unifying the codes and centrally managing them solved many these problems. In addition, from the procurement perspective, even if we are unable to procure parts due to some incidents, we will be able to shift flexibly to another supplier from. For example, if it does not work in Japan, we can try other countries. This is also very important from a BCP* perspective.

In addition, the procedures will be standardized in terms of operations, and standardization of operations will progress. As a result, there is no complicated work from each site. This is also a big advantage.

The material code unification is also an element of our work style reform. From a broad perspective, the unification of material codes on a global basis is an image of the Yaskawa Group's 67 consolidated companies working on the same table. We want to embed our corporate culture (Yaskawa DNA) properly so that the Yaskawa Group can work together to achieve sustainable growth. In other words, reforming our corporate culture is the formula for success: work style reform = awareness reform + operation reform. One cornerstone is data unification to unite Yaskawa's corporate culture, beginning with global material code unification.

——Is there anything you are aware of or are having difficulty in proceeding?

I think the most important thing is to express "what we should be" and share "our purpose". In the past, it was not always a bad thing to use different codes, because there were good decisions at that time. However, there are many things that need to be changed in order for the Yaskawa Group to conduct business on a global scale. I am fully aware of the difficulty of moving to something new without stopping the current business. The challenge is to make sure that everyone understands the need to change the way we have operated so far and to make our activities more convincing. On top of that, we are aware of communication with related departments. In particular, material codes originate from the engineering department, so it is very important to input information that can be understood and shared globally.

Another challenge is global communications. All of you know that it's difficult to communicate with overseas bases in English because English for the products and expertise are needed. It is also difficult for us to travel due to COVID-19, so we can hardly communicate face-to-face. To cope with this situation, we assigned members in charge in each country and location, and share the same information with the same email address.

——How do you plan to expand globally?

Global operations began in its affiliated companies, Japan, China, and other parts of Asia. Then they will also start in Europe and the United States. I appreciate your understanding and cooperation.

——What are your plans for the future?

The company-wide YDX initiatives, including material code unification, are ongoing. I hope that everyone will share what they are thinking of issues and what they are having trouble with, and that they will work together while being aware of DIY (Do It Yourself) while aiming at "what they should be" and "sharing the purpose". In addition, it is essential to obtain the understanding and cooperation of everyone while incorporating your opinions. Together with all of you, we will take on the challenge of transforming YDX to improve our corporate culture and optimize the entire Yaskawa Group. Thank you for your continuous activities.

*: An acronym for business continuity plan. Measures to ensure that critical operations can continue even under critical conditions, such as natural disasters, terrorist attacks, and system failures.

YASKAWA
NOW

YASKAWA NOW brings you all the hottest topics from the Yaskawa Group.

Let's Accelerate Efforts toward Decarbonization through Production Activities (Green Processes) and Products (Green Products) to Build Sustainable Corporate Value!

How does the Yaskawa Group address global issues of environmental conservation and climate change? We will show the message from Director Mr. Minami about our environmental initiatives and how we can use them to increase corporate value. This article is based on the Yaskawa Report 2021.

Yaskawa's environmental management

In recent years, the effects of global warming have become remarkable such as abnormal weather occurring around the world and serious discussions have been held on countermeasures against climate change as an urgent global issue. In the Paris Agreement at the 21st Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP21) in December 2015, the international goal which was "keeping the increase in global average temperature from pre-industrial levels to 1.5 ˚C while keeping it well below 2 ˚C" was set. In October 2020, Japan declared that it would aim for carbon neutrality (Zero emission of greenhouse gases overall) by 2050, and companies are required to show goals and directions to be achieved in response to global warming.

In response to that, Yaskawa Group constructed its environmental vision called "YASKAWA ECO VISION"*1 and promotes

Abbreviation of Organization and Facility Names:

(K) : Environmental & Social Systems Div.

Notes:
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Director, Managing Executive Officer
General Manager, Production Management & Operations Div.,
General Manager, Export & Import Administration Div.
YASKAWA Electric Corporation

Yoshikatsu Minami

environmental management toward decarbonization by reducing the environmental impact through production activities (green processes) and reducing the environmental impact of society through the supply of Yaskawa products (green products). "green process" is any production process that produces minimal green-house gas emissions (GHGs), especially CO_2. For example, we are saving energy by actively using our own equipment such as AC drives and power regeneration converters. In addition, we installed solar panels on the rooftops of each facility and a total generating capacity reached approximately 2.5 MW (February 2021). Furthermore, as of May 2021, approximately 43% of the total electricity demand of Yaskawa Group's production activities in Japan was covered by renewable energy, as a result of introducing 100% renewable energy into the three main sites in Japan (Yahatanishi, Nakama, and Kokura).

On the other hand, "green products" means to reduce CO_2 emissions through providing Yaskawa products. Yaskawa has developed many green products that can reduce CO_2 emissions. Two examples are our efficient AC drives and IPM motors. Also we have PV inverter for solar power generation of (K) and (SOL) and electrical equipment for large-scale wind turbines of (TSW).

The amount of CO_2 emissions reduced through sales of these products on a global scale totaled approximately 35 million t-CO_2 over 5 years from FY 2016 to FY 2020. This is equivalent to greening an area of approximately 29,000 km² (approximately 6 times larger than the area of Fukuoka Prefecture).

In addition, in order to promote the environmental management, we adopt the degree of achievement for the reduction target of CO_2 emissions through our products as one of the indicators for calculating the stock compensation of our directors.

"CCE 100", a unique index that combines green processes and green products

Recognizing that the response to climate change become an urgent global issue, Yaskawa Group has established its own index for CO_2 emission reduction efforts called "CCE 100 (Contribution to Cool Earth 100)". This is a unique indicator with the goal of contributing to a 100 times or more reduction in CO_2 emissions through products sold by Yaskawa Group than annual CO_2 emissions from Yaskawa Group's production activities. We aim at achieving it by fiscal 2025.

In fiscal 2019, we reached about 75 times but in fiscal 2020, it was only about 63 times because the revenue of green products decreased due to the spread of the novel coronavirus infection and other factors.

In Yaskawa Group, IoT, AI, and big data are utilized through "i³-Mechatronics" to reduce production lead times, improve utilization rates, and contribute to improving productivity. By doing so, we believe that energy consumption per unit of production at plants will be reduced, leading to a reduction in CO_2 emissions at the Yaskawa Group's and our customers' plants.

Efforts toward decarbonization (Carbon neutral and TCFD information disclosure)

As a long-term goal for decarbonization, in March 2021, Yaskawa Group set a goal of substantially zero CO_2 emissions (2050 CARBON NEUTRAL CHALLENGE) from its global business activities in 2050. As a milestone, a goal to reduce CO_2 emissions in fiscal 2030 by 36% from the fiscal 2018 level was also set. In fiscal 2020, we achieved a 10% reduction from the fiscal 2018 level and are making steady progress.

In September 2019, we expressed our support for the vision of the Task Force on Climate-related Financial Disclosures, and in May 2021 we disclosed information based on TCFD recommendations*2. When we analyzed the impact of climate change on Yaskawa Group, we came to the conclusion that revenue growth in products and solutions related to energy conservation, productivity improvement, and renewable energy power generation was greater than revenue decline due to increased risks such as abnormal weather and resource shortages.

From this, we will continue to take concrete measures to address the identified risks, while also seeing various global responses to climate change as a great opportunity to expand our business. Thereby we will achieve both contribution to the environment and our own growth.

Future environmental management to improve corporate value

Environmental initiatives are becoming more and more important as a requirement for being a company that is chosen by customers as well as other stakeholders. Yaskawa Group will promote the introduction of electricity delivering from renewable energy to its other business sites in Japan (including the Iruma and Yukuhashi Plants), with the aim of meeting all of the Group's total electricity demand in Japan with renewable energy by fiscal 2030. In addition, by continuously investing in the environment with a portion of profits and promoting initiatives for decarbonization, we will realize sustainable operations on a global scale and the sustainable improvement of corporate value.

Our entire Yaskawa team should be aware that their work will lead to decarbonization, which will increase corporate value. Let's take action with what we can.

*1: Yaskawa Group's Environmental Vision "Yaskawa's Eco-Vision"
https://www.yaskawa-global.com/company/csr/env/activity

*2: Information Disclosure Based on TCFD Recommendations
https://www.yaskawa-global.com/company/csr/env/tcfd

TCFD (Task Force on Climate-related Financial Disclosures) : The task force was set up by the Financial Stability Board (FSB: Financial Stability Board) in December 2015, an international organization for stabilizing the financial system. In June 2017, it published a proposal for "Supporting companies that disclose information on climate-related risks and opportunities" and "Stabilize financial markets through a smooth transition to a low-carbon society".

YASKAWA NOW NEWS & TOPICS

YASKAWA NOW – NEWS & TOPICS – events and news from the Yaskawa Group

(YAI) **YASKAWA AMERICA, INC.**

Automation of the Furnace Loading Process Quickens the Response to Customers

Reporter : (YAI) Sarah Mellish

MOTOMAN was supplied for their insertion into the furnaces.

GKN Sinter Metals (Salem, Indiana USA), a precision powder metal manufacturer, installed 30 Yaskawa handling robots throughout their 220,000 sq. ft. factory for high-quality standards for parts processing as well as on-time delivery. By automating their furnace loading process for the transmission of sprockets and carriers, GKN is better equipped to respond to large orders from customers such as Ford, Toyota, and Honda.

The change to automation from manual works increased GKN's productivity by 15% and generated for them a 25% savings in scrap inventory. The reduction in cost for parts processing at the briquette press due to removal of the use of dunnage have facilitated full return on investment (ROI) for GKN within the targeted payback period of 12 to 15 months. Subsequently, the decline in the manual works reduced the number of dents and improved product quality.

To strengthen their human workforce and operations, GKN leveraged the offerings of Yaskawa Support Services (YSS) – Yaskawa's customer service group. The comprehensive robot maintenance and technical assistance provided by YSS have enabled a thorough approach to production, maximizing ROI and optimally positioning GKN for success in the future.

(YIND) **YASKAWA INDIA PRIVATE LIMITED**

Order of Large-scale Projects for Educational Institutions

Reporter : (YIND) Makoto Horikawa

Karnataka's premier Yediyurappa visits the Education Cell

Joint meetings of the partner companies with state officials

Inverter training kits

In 2020, (YIND) R received an inquiry from TATA Technologies, one of the largest conglomerates in India, for a large-scale project for educational institutions. This is a part of the Group's CSR activities and involves the introduction of training equipment such as industrial machinery for the vocational training schools in Japan. (YIND) R is responsible for supplying to these equipment as a result of the company's aggressive sales activities. As the first order, in the month of March of the respective year, we received a bulk order of 300 robots that would be used across 150 schools in Karnataka. This is the largest sales order ever in the history of (YIND) R's existence. At the same time, we received an order of 150 sets of D & M inverter training kits. We are currently working on projects received from some of the other states and are expected to receive similar orders over the next few years.

This collaboration will not only add up to the recent achievements of (YIND) R and D & M, but also has the potential of expanding Yaskawa users and their fans in Indian society via the future participation of students who have been trained at the facilities handled by Yaskawa.

Although India is currently witnessing hard times due to the COVID-19, we will continue growing our business by expanding our targets to new industries, such as this one, in addition to our existing focus areas.

Ordered robot education cells

Commemorative photos following the top meeting [From left: (YIND) Sales Rep Rajesh, TATA Tech. Sushil, VP; Pushkaraj, President; Ajay, COO of (YIND) R]

Abbreviation of Organization and Facility Names:

(FAG): Agri Business Promotion Office (FAMS)

Notes:
1 The positions and posts indicated are based on personnel organization information of FY 2021 first half.
2 See the back cover for company name abbreviations.

(YTW) **YASKAWA ELECTRIC TAIWAN CORPORATION**

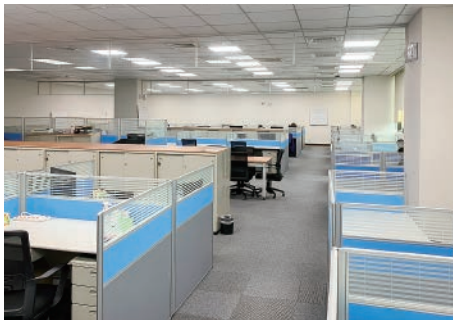
Opening of Taichung Solution Center

Reporter：(TSC) Director Teruaki Yamaguchi

Appearance of the TSC

Robot exhibition area

Clean room


Third floor office


Mechatronics exhibition area

The Taichung Solution Center (Abbreviated name: TSC) started its operations in the demonstration area on May 10, 2021.
TSC has a robot center and a robot warehouse in Tainan, a repair center in Taibei, as well as M & C and inverter warehouse. It has six functions: solution service, demonstration machine display, sample test, repair and remodeling, education and training, and warehouse. It has a total of 45 members in the technology, sales, planning, operations, and management divisions. (R) (M) (V) engineers will be integrated to the TSC Technology Headquarters for assisting the system integrators to develop applications. We have prepared a place where the customers could actually see, touch, and check the function of the solution. As a total service base that implements i³-Mechatronics, we will be offering smart solutions to customers.

(FAMS) **FOOD & AGRI MECHATRO SOLUTION INC.**

Start of the Industry's First Automatic Vegetable Harvesting Room

Reporter：(FAG) Ryoji Ikeda

(FAMS) was established in August 2018 as a member of the Yaskawa group. We at (FAMS) have been working to create new businesses by providing high-value-added solutions to food and agricultural industries.
In recent years, the vegetable factories that produce vegetables via the use of indoor equipment have become popular in the agricultural industry. The scale of such factories is expected to increase in the future. Under these circumstances, there has been an increase in the need for labor saving in plant production. To address this need, Yaskawa has come to develop an automatic vegetable production system that automates labor-intensive processes by using Yaskawa products such as robots, servos, AC drives, and controllers.


Prayer at the time of equipment startup


Vegetables grown in an automatic vegetable production room

In November 2020, we completed the delivery of the first batch of equipment to convenience store vendors, and the vegetables produced at the factory are now used in convenience store salads. Maybe the vegetables you eat are from the (FAMS) facility.
In the second phase, we began the development of the industry's first automatic harvesting system and set up an automatic vegetable production room for verification.

YASKAWA in ACTION

With YASKAWA in ACTION, we introduce cases where our products are used in various countries around the world. The sixth report is from Japan.

Vol.6 Mahoro is Working on the PCR Tests for COVID-19!

Yaskawa Group's Robotic Biology Institute Inc. (RBI) commissioned LabDroid Mahoro, a humanoid general-purpose robot, to conduct the preprocessing of genome analyses, including cancer genome diagnosis. Mahoro has also come to be used for PCR testing (RNA*1 extraction process) and mutant analysis during the COVID-19. Mahoro has also come to be used for virus screening tests, which was conducted by the Yaskawa Group in Japan for employees who are on business trips or have meetings with customers.

LabDroid "Mahoro," a general-purpose humanoid robot

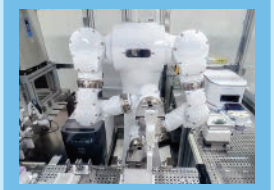
*1 : A type of nucleic acid that records and stores the genetic information of living organisms such as organisms and viruses. The COVID-19 uses RNA as its genetic information material.

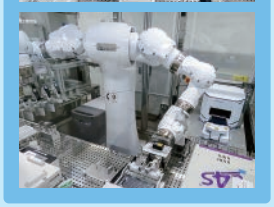
What is PCR testing?

The genes of the COVID-19 are made up of a nucleic acid called RNA.
The PCR test is a method to detect the presence of the virus by extracting the RNA containing gene sequences that are specific to the novel COVID-19 and amplifying it via a reagent or temperature change.

Flow of inspection

1. The collected samples are inactivated*2.
   *2: Eliminating the virulence of the virus with heat, ultraviolet light, or drugs (making it less contagious)
2. Reagents are added to the sample and agitated, and the sample is heated by setting the reagent in the device.
3. The device checks each sample for the presence of virus.





While currently, only an approximate of 100 specimens are examined in a week, the ultimate aim is to establish a test system that examines 3,000 specimens in one week.

Advantages of introducing robots

- Improved repeatability improves accuracy
- Since robots can operate for a long time without stopping, many specimens can be examined
- Human error and contamination can be avoided

Future Initiatives

Early Detection of COVID-19 in Sewage

Since COVID-19 is detected at a high rate in the feces of infected people, detection of the virus in sewage enables early detection of the epidemic and areas where the mutants are invading. (RBI), SHIONOGI & CO., LTD., Hokkaido University, and iLAC Co., Ltd. (Inspection scheduled to begin in autumn 2021)

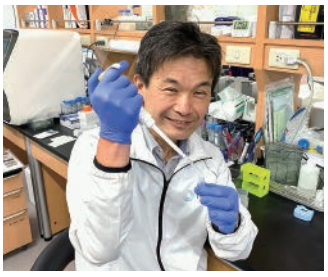
SHIONOGI & CO., LTD.

Although it is difficult to predict when, where, and what an infectious disease pandemic will occur, sewage-based epidemiological surveys are an effective means through which one can quickly detect the symptoms. The technology developed jointly by Shionogi & Co., Ltd. and Hokkaido University can detect only a few people per 100,000 if there are people infected by the COVID-19. Initially, we will implement this technology for the novel COVID-19 in society. Then, in the future, we will consider applying the technology to other infectious diseases such as influenza and automating it with Mahoro to contribute toward Japan's infection control measures.

SHIONOGI & CO., LTD.
Vice President
DX Promotion Division
Head of the Digital Intelligence Dept.
Hiroyuki Kobayashi, Ph.D.

(RBI) President Kenji Matsukuma

Mahoro has high versatility, allowing us to freely change the work procedure. We were able to quickly respond to the work for COVID-19 this time without modifying Mahoro. (RBI) is a unique company within the Yaskawa Group. Its core competencies lay in the life sciences, including genome analysis and regenerative medicine. During this time of crisis, we will do our best to help you out in areas of high interest. The Yaskawa Group in Japan has been screening tests and carrying out analyses of the virus variants in Japan.



YASKAWA

YASKAWA BRAND

We would like to introduce results of a W.W.Y. readers' survey.

The Yaskawa Group Newsletter

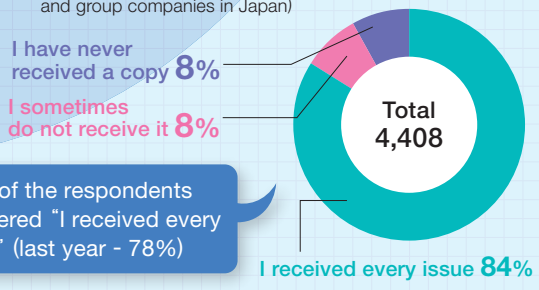
World Wide YASKAWA (W.W.Y.) Readers' Survey Results

This section presents the results of a W.W.Y. readers' survey conducted on delivery status and content with respect to Yaskawa Group employees during January–February, 2021. The survey was conducted with the goal of issuing an improved newsletter. Thank you for your cooperation in answering the questionnaire.

Number of respondents: 5,672; Response rate: 60%

Q1 Do you receive Yaskawa Group's newsletter "W.W.Y." ?

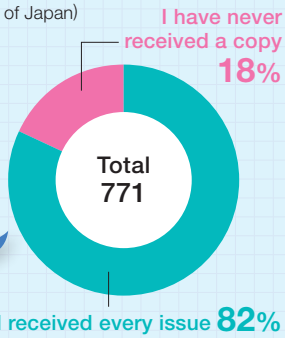
(Question target: employees of Yaskawa Electric and group companies in Japan)



84% of the respondents answered "I received every issue" (last year - 78%)

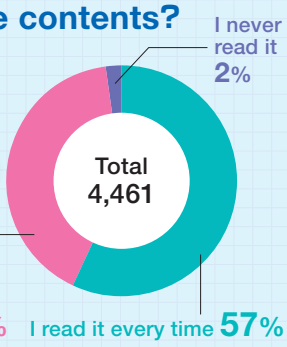
Q2 Did you receive the "W.W.Y." PDF file?

(Question target: group employees outside of Japan)



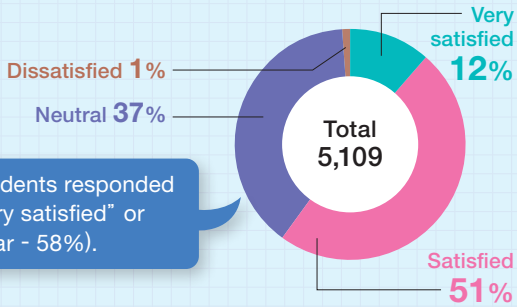
Due to COVID-19, we have temporarily changed the publication channel to we sending a PDF file via e-mail since the September 2020 issue for overseas employees. 82% of the respondents said they received a PDF file.

Q3 Do you read the contents?



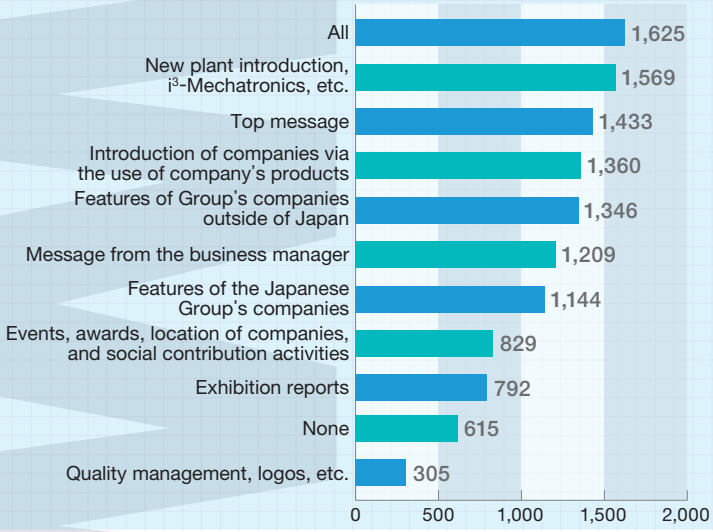
Including the option "I read it sometimes," 98% of the readers read the contents (last year - 86%).

Q4 Are you satisfied with the contents?



62% of the respondents responded that they were "very satisfied" or "satisfied" (last year - 58%).

Q5 What are your preferred contents?



Q6 Other comments/inquiries

- More information is required about the Group's companies
- More information is required about foreign countries
- Enhanced content relating to product case studies is required

The Yaskawa Group newsletter is published with the goal of "supporting the realization of the management vision by sharing important information that should be shared with the Yaskawa Group employees and driving a sense of one Yaskawa."
We will make use of your valuable opinions to create group newsletters that are easier to read and are more satisfying.

Please contact the corporate communication division to share your opinions and comments on World Wide YASKAWA. You can e-mail them to pr@yaskawa.co.jp.

YASKAWA

YASKAWA GROUP

Japan

(YEC)	YASKAWA ELECTRIC CORPORATION
(YAD)	YASKAWA AUTOMATION & DRIVES CORP.
(YMC)	YASKAWA MECHATREC CORPORATION
(Suekyu)	SUEMATSU KYUKI CO., LTD.
(FAMS)	FOOD & AGRI MECHATRO SOLUTION INC.
(AI3)	AI CUBE INC.
(RBI)	ROBOTIC BIOLOGY INSTITUTE INC.
(BT)	BESTACT SOLUTIONS INC.
(i3D)	i3 DIGITAL CORPORATION
(C)	YASKAWA CONTROLS CO., LTD.
(YL)	YASKAWA LOGISTEC CORPORATION
(YEM)	YASKAWA MANUFACTURING CORPORATION
(Ei)	DOEI CORPORATION
(YOC)	YASKAWA OBVIOUS COMMUNICATIONS INC.
(YEM-ho)	YASKAWA ENGINEERING FACTORY SERVICE CO., LTD.
(YT)	YASKAWA TRANSPORT CORP.
(YLP)	YASKAWA PACKAGING CORP.
(Fukka)	FUKUOKA KASEI INDUSTRIES CO., LTD.
(HKS)	HK SHEET METAL TECH CO., LTD.
(BB)	YASKAWA BUILDING SERVICES LTD.

The Americas

(YAI)	YASKAWA AMERICA, INC.
(SOL)	SOLECTRIA RENEWABLES, LLC
(YEB)	YASKAWA ELETRICO DO BRASIL LTDA.
(YCA)	YASKAWA CANADA INC.
(YMX)	YASKAWA MEXICO S.A. DE C.V.
(MIB)	MOTOMAN ROBOTICA DO BRASIL, LTDA

Note: Abbreviations of company names are shown in parentheses.

EMEA

(YEU)	YASKAWA EUROPE GmbH
(YNR)	YASKAWA NORDIC AB
(YGB)	YASKAWA ELECTRIC UK LTD.
(YET)	YASKAWA EUROPE TECHNOLOGY, LTD.
(TSW)	THE SWITCH ENGINEERING OY
(YER)	YASKAWA EUROPE ROBOTICS D.O.O.
(YEUK)	YASKAWA UK LTD.
(YIT)	YASKAWA ITALIA S.R.L.
(YFR)	YASKAWA FRANCE SARL
(YIB)	YASKAWA IBERICA S.L.
(YBE)	YASKAWA BENELUX B.V.
(YSL)	YASKAWA SLOVENIJA D.O.O.
(YRS)	YASKAWA RISTRO D.O.O.
(YCZ)	YASKAWA CZECH S.R.O.
(YSA)	YASKAWA SOUTHERN AFRICA (PTY) LTD.
(YTR)	YASKAWA TURKEY ELEKTRIK TICARET LTD. STI.
(YFI)	YASKAWA FINLAND OY
(YPL)	YASKAWA POLSKA SP. Z O.O.

Asia

(China)	YASKAWA ELECTRIC (CHINA) CO., LTD.
(YEK)	YASKAWA ELECTRIC KOREA CORPORATION
(YAP)	YASKAWA ASIA PACIFIC PTE. LTD.
(SYD)	SHANGHAI YASKAWA DRIVE CO., LTD.
(YTW)	YASKAWA ELECTRIC TAIWAN CORPORATION
(Shenyang)	YASKAWA ELECTRIC (SHENYANG) CO., LTD.
(YSR)	YASKAWA SHOUGANG ROBOT CO., LTD.
(YCR)	YASKAWA (CHINA) ROBOTICS CO., LTD
(YIND)	YASKAWA INDIA PRIVATE LIMITED
(Tsusho)	YASKAWA TSUSHO (SHANGHAI) CO., LTD.
(YAPT)	YASKAWA ELECTRIC (THAILAND) CO., LTD.
(YAPI)	PT. YASKAWA ELECTRIC INDONESIA
(YAPV)	YASKAWA ELECTRIC VIETNAM CO., LTD.
(YAPM)	YASKAWA MALAYSIA SDN. BHD.
(Toei)	DONGYING YASKAWA CONTROLS CO., LTD.
(YMCT)	YASKAWA MECHATREC (THAILAND) CO., LTD.
(YMCV)	YASKAWA MECHATREC VIETNAM CO., LTD.

Cover Photograph: PM Motor Production Line at Yahata Higashi Plant

The PM motor demonstrates a high energy saving effect when used in combination with an inverter.
The PM motor plant at Yahata Higashi primarily produced a small quantity of a wide variety of products. The processes in the plant is performed manually.
While there are many, we are aiming to build a production line with high work efficiency by automating processes, which will help expand sales and increase production. Further, we aim to develop new products "with inverters."

Outer appearance

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