

## **JAPANESE INDUSTRY AND POLICY NEWS**

### **October-November 2020**

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## LEGISLATION AND POLICY NEWS

### **Japan to drop “Hanko” seals requirement in 99% of administrative procedures**

In Japan, most administrative procedures require a seal, but the administrative reform minister, Mr. Taro Kono announced at a news conference on Nov. 13 that he would abolish nearly all requirements for people to use seals in getting administrative procedures approved. Roughly 15,000 processes currently require “Hanko” seals, such as applications to government agencies. The requirement will be dropped for all but 83 procedures that require seals registered with local authorities. Amendments to current laws will be submitted to the regular Diet session that starts next year.

Under directions from Mr. Kono, the Cabinet Office in September asked all government ministries and agencies to in principle abolish the use of seals. Of the 14,992 procedures that required seals, 5,198 had the requirement dropped or were in the process, and 9,711 were under review.

Now the use of unregistered seals will be eliminated, leaving 83 processes that require officially registered seals, a drop in seal usage of more than 99%. Seals will no longer be required to request copies of official documents such as certificates of residence, marriage and divorce registrations, and tax documents. They also will no longer be needed in vehicle inspections. They will still be required for registering new companies, real estate transactions and vehicle registrations.

The prime minister Mr. Suga administration is pushing a digitalization effort that involves cutting seal usage, getting rid of requirements for documents and face-to-face meetings, removing requirements on residency and designated occupation, and promoting cashless payments. Mr. Kono achieved a goal of abolishing seal usage within two months from the start of the administration in mid-September. With the issue of seals resolved, changes to requirements on documents and face-to-face meetings will be the next step. "Once we've gotten rid of the act of stamping a seal on documents, those documents can be completed online instead of physically," Mr. Kono said.

In October, the Cabinet Office asked all ministries and agencies to move their administrative procedures online in order to reduce administrative burdens and improve services for residents. Officials were asked to explain by late November if any procedures could not be done digitally.

Prior to the government's decision to abolish the seal, METI and other related ministries and agencies have answered questions that companies have regarding the seal in the form of Q & A, and have made it public since June.

METI website: [https://www.meti.go.jp/english/covid-19/ouin\\_qa.html](https://www.meti.go.jp/english/covid-19/ouin_qa.html)  
(in Japanese)

Image of “Hanko” seal from NHK Website



### **Image design registered for the first time**

The Ministry of Economy, Trade and Industry announced on November 9 that the vehicle information display image of Koito manufacturing co., Ltd., an automotive lighting equipment manufacturer was registered as the first image. Regarding the registration of designs, the Design Law has been drastically revised in order to protect excellent designs that contribute to the promotion of innovation and brand building, and from April 1, 2020, the designs of images, buildings and interiors will be added. This registration is the first image registration after the revision of the Design Law.

In recent years, with the diversification of internet services and the dramatic spread of smartphones, applications and software recorded on the cloud are being provided to users through networks. Since the design of images such as

apps on the cloud and images projected on places other than goods plays an important role in determining the convenience of products, innovation is achieved by granting exclusive rights to the image design. The Design Law was amended because it can promote the promotion and strengthen the competitiveness of companies.

The image registered this time is named “Area Marker”™ which is an image irradiated on the road surface from a vehicle equipped with an image projection device. The image represented by the diagram is irradiated around the vehicle when the vehicle is running or stopped, so that the presence of the vehicle can be easily visually recognized from the outside.

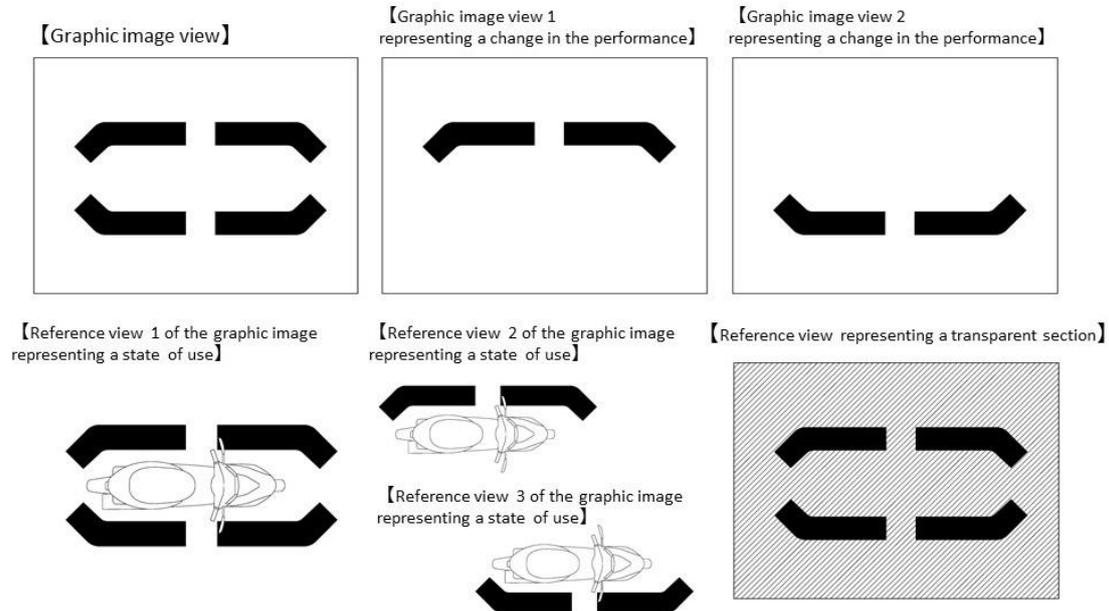
In addition, this image makes it easier for the rider to visually recognize the condition of the road surface around the vehicle. When the vehicle changes the direction of travel as shown in the image diagram, it is expected to contribute to the safety of motorcycle riders.

METI website:

[https://www.meti.go.jp/english/press/2020/1109\\_001.html](https://www.meti.go.jp/english/press/2020/1109_001.html)

“Area Marker”™ of Koito manufacturing co., ltd. from METI website





## Prime Minister Mr. Suga declares "substantially zero greenhouse gases by 2050"

On October 26, Prime Minister Mr. Yoshihide Suga gave his first statement of belief after taking office, saying, "The Suga administration has set" a virtuous cycle of economy and environment " and "We hereby declare that Japan will aim to reduce greenhouse gas emissions to zero as a whole by 2050, that is, to realize a carbon-neutral, decarbonized society in 2050."

In addition, he said, "We will establish a stable energy supply by thoroughly conserving energy, introducing renewable energy to the maximum extent and advancing nuclear power policy with safety first. Besides, the policy on coal-fired power generation will drastically changes."

He also said, "Responding to warming is no longer a constraint on economic growth, and it is necessary to change the way of thinking that proactive measures against warming will bring about changes in the industrial structure and economic society, leading to great growth." "The key is innovations such as next-generation solar cells and carbon recycling. We will accelerate research and development with a view to practical application."

He emphasized that he would "work with all his might" by mobilizing all policies

such as regulatory reform to further popularize green investment and creating a new place for consideration in the national and local governments toward the realization of a carbon-free society.

Prime minister's office website:

[https://japan.kantei.go.jp/99\\_suga/statement/202010/00006.html](https://japan.kantei.go.jp/99_suga/statement/202010/00006.html)

Prime Minister Yoshihide Suga gave his first statement of belief  
from NHK website



### **New establishment and revision of Japanese Industrial Standards (JIS)**

On September 23, the Ministry of Economy, Trade and Industry (METI) announced the establishment and revision of JIS in September. This time, there were 12 establishments and 14 amendments, among which the safety requirements for horse-riding electric wheelchairs are drawing attention.

In recent years, Japan has been facing a shortage of human resources that can play a leading role in the field of nursing care, which is a rising challenge in an aging society. Specifically, this situation has been imposing excess burdens on caregivers when they try to move care receivers from beds to wheelchairs.

To overcome this, Japanese industries have been advancing the development of “horse riding style” electric wheelchairs to help caregivers more easily move care receivers. However, such products are still on the way to popularization and these industries have no fixed specifications for the products. To address this challenge, METI established JIST9210 as a standard for safety

requirements for “horse riding style” saddle type electric wheelchairs. This standard will permit industries to incorporate all necessary safety considerations in developing such products. In addition, this establishment is expected to contribute significantly to not only creating new markets, but also supporting care receivers in obtaining independence in their daily lives and reducing the burden on caregivers as workers engaging in the field of nursing care.

METI website: [https://www.meti.go.jp/english/press/2020/0923\\_002.html](https://www.meti.go.jp/english/press/2020/0923_002.html)

A “horse riding style” electric wheelchair from METI website



## **SURVEY AND BUSINESS DATA**

### **GDP July-September annual rate increase of 21.4%**

The preliminary gross domestic product (GDP) for the July-September of 2020 announced by the Cabinet Office on Nov. 16, is 5.0% from the April-June period, on an annualized basis, increased by 21.4%. The high growth in reaction to the largest decline (down 28.8%) in the April-June quarter. A positive growth is the first in four quarters, but the level before COVID-19 is far.

The quarter-on-quarter growth rate reached the largest level in about 52 years since the October-December period of 1968. Even so, it has only recovered

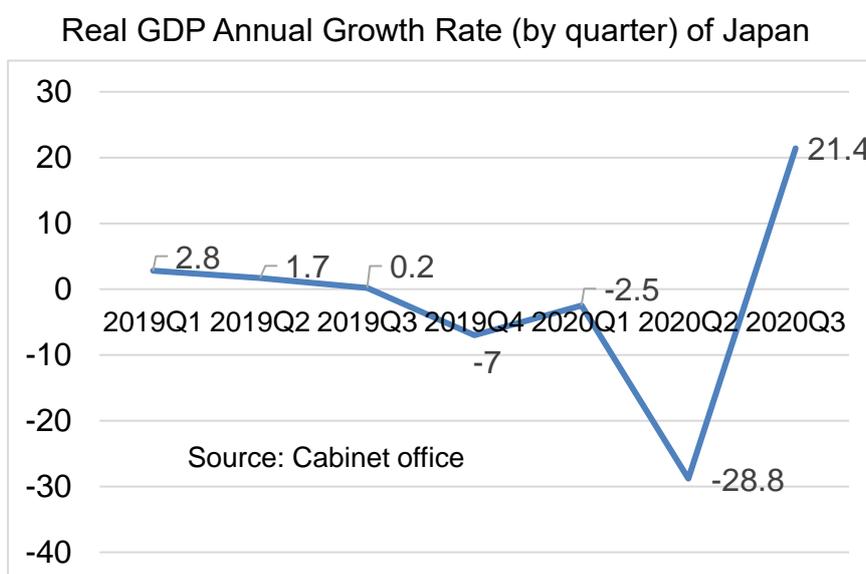
more than half of the decline in the April-June quarter, when economic activity was restricted by the government's state of emergency. Looking at the factors behind the increase in real GDP by 5.0% from the previous quarter, domestic demand such as personal consumption increased by 2.1% and external demand increased by 2.9%.

Private consumption, which accounts for the majority of GDP, increased by 4.7% from the previous quarter. There was a reaction from April to June, which was a sharp decrease of 8.1%. Consumption of services such as eating out and entertainment, which was restricted in early spring, picked up. Sales of durable goods such as home appliances and automobiles were also strong due to the effect of a special benefit of ¥ 100,000 per person. Exports were up 7.0%. It turned to an increase from a 17.4% decrease in the previous period. Automobile-related exports increased to China and the United States, which are leading the economic recovery.

The private fixed investment fell 3.4% and the decline did not stop. The investment mainly in production machinery has decreased. The corporate investment motivation has not returned due to uncertainties in business performance in the future. The housing investment also fell 7.9%.

Cabinet office website:

<https://www.esri.cao.go.jp/en/sna/data/sokuhou/files/2020/qe203/qdemenua.html>



### **Nikkei Trendy and Nikkei X Trend announce 2020 hit products**

On November 3, Nikkei Trendy and Nikkei X Trend, digital magazines affiliated with Nikkei Inc., announced 30 hit products in Japan in 2020. Both of them announce this time every year, but this year, due to the influence of COVID-19, the breakthrough of nesting products was remarkable. The target products are products and services announced and released between October 2019 and September 2020. Specifically, the judgment was made comprehensively according to the following three points.

(Evaluation points)

[Sales]: How much have it expanded sales and market share? How many people did it gather? How long can sales continue?

[Novelty]: Did it have any epoch-making technology, points of view, and ideas for selling?

[Influence]: Did it follow the competition of other companies, or did it form an unprecedented market? Did it change the lifestyle and common sense in society and influence the world?

As a result, the manga "Kimetsu no Yaiba" (DEMON SLAYER) was selected as the first place, both manga and movies are hitting unprecedented numbers. Nikkei analyzes that many people suffering from COVID-19 embraced the hero who continues to make efforts to save his sister and became a big hit.

"Kimetsu no Yaiba" (Demon Slayer), image from Amazon.co.jp web site



(Best 10 products)

1<sup>st</sup>: Kimetsu no Yaiba (DEMON SLAYER) (Manga)

2<sup>nd</sup>: Mask consumption (Daily necessities)

3<sup>rd</sup>: Animal Crossing (Nintendo Game)

4<sup>th</sup>: Zoom (Video conference system)

5<sup>th</sup>: Lemondo (Lemon sour cocktail)

6<sup>th</sup>: Air Pods Pro (Wireless earphone)

7<sup>th</sup>: Mobile order (Smartphone order for deliveries)

8<sup>th</sup>: Shupatto (Eco bags for shopping)

9<sup>th</sup>: From today I am !! (Movie)

10<sup>th</sup>: Gokiburimuendah (Cockroach repellent)

In 2020, many of the new facilities and new products prepared for the Tokyo Olympic Game were suspended, and consumption changed significantly. People who were deprived of "experiential consumption" such as eating out, traveling, watching sports, etc. by refraining from going out headed for consumption to lead a fulfilling life at home, and a trend which had never been before was born.

For example, "Animal Crossing (Nintendo game, 3<sup>rd</sup>), which sold outstandingly in the game market. This game is the unusual setting that multiple players could live in the same "village" and it supplemented the communication with the person.

A product so called the "new standard" in the new normal era was also a hit. The first is, of course, mask consumption (2<sup>nd</sup>). When going to a crowded place or a store, it is completely "mannered" to wear it. It has become a major market for various manufacturers to enter the mask body and related products.

Video conference systems such as "Zoom" (4<sup>th</sup>) have become indispensable in terms of support for new normal. The reason why various companies were able to telework was that they could communicate to some extent with their home computers. Not only for work, but also for language lessons, Yoga lessons, various seminars, and even drinking parties. Some of these are likely to remain after COVID-19 has converged.

In a different sense from masks, it has become commonplace to carry eco-bags (shopping bags) such as "Shupatto" (8th). In the summer, more and more people are wearing "Peltier element coolers" (22nd), which cool their necks with cold semiconductors, instead of portable electric fans.

Coca-Cola Japan's first liquor "Lemondo" (Lemon sour cocktail) (5th) made its debut after the fall of 2019 and grew into the largest brand. In the growing market of Lemon Sour, where strong players are already fighting fiercely, they made a brilliant vertical launch and took the top spot.

Nikkei xtred website: <https://xtrend.nikkei.com/atcl/contents/18/00379/00001/>  
(in Japanese)

## COMPANY & ORGANIZATION NEWS

### **Toshiba Group started world's first large-scale CO2 separation and recovery demonstration at a biomass power plant**

On October 31, Toshiba Energy Systems & Solutions Corporation announced they started the operation of separating and recovering CO2 emitted from the power plant at the Mikawa Power Plant (Omuta City, Fukuoka Prefecture). According to the company, it is the world's first large-scale BECCS (biomass power generation with CO2 separation / recovery / storage technology) compatible facility that separates and recovers CO2 emitted from biomass power plants.

In September 2009, the company built a pilot plant with a daily CO2 capture capacity of 10 tons at the Mikawa Power Plant, which uses palm shell as the main fuel for biomass power generation. Since then, they have been verifying system performance in actual power plants as well as operability and maintainability.

The facility to be operated this time is able to separate and recover 500 tons or more of CO2, which is 50% of the CO2 emitted from the power plant every day. According to the company, it is the first facility in Japan that can recover more than 50% of the CO2 emitted from thermal power plants.

In addition, the power plant is a carbon-neutral power plant that uses palm shell

as the main fuel, and it is said that "negative emissions" will be realized by applying CCS (Carbon dioxide Capture and Storage) technology that separates and captures CO<sub>2</sub>.

This project will be implemented under the Ministry of the Environment's "Environmentally Friendly CCS Demonstration Project" commissioned by 18 corporations. The company hopes to contribute to the prevention of global warming by developing BECCS-compatible equipment that applies CCS technology to biomass power plants toward the full-scale implementation of CCUS (Carbon dioxide Capture, Utilization and Storage) in 2030 set by the Ministry of the Environment.

Toshiba Energy Systems & Solutions Corporation website:  
[https://www.toshiba-energy.com/en/info/info2020\\_1031.htm](https://www.toshiba-energy.com/en/info/info2020_1031.htm)

CO<sub>2</sub> Separation and Recovery Demonstration Facility  
(From Toshiba Energy Systems & Solutions Corporation website)



### **Japan Research Institute establishes consortium for research on recycling model of EV in-vehicle battery**

On October 16, the Japan Research Institute announced they establish the "Battery Circular Ecosystem Consortium" this month. The Consortium studies the data utilization technology required to improve the added value of reuse and recycling of in-vehicle batteries installed in electric vehicles (EVs) for establishing the circulation structure of in-vehicle batteries.

The consortium tries to build a platform system of which one-stop residual value diagnosis even for vehicle maintenance and dismantling companies that do not have specialized battery technology, and it can provide diagnostic data to a wide range of stakeholders such as leasing, insurance, reuse battery users and recycling companies. In addition, the concept of an ecosystem that manages the entire life cycle of in-vehicle batteries will be formulated.

Specifically, in cooperation with China's largest venous industry model area, Jinghai District, Tianjin City, they conducted tests multiple diagnostic technologies using used in-vehicle batteries accumulated in the area. In China, which accounts for the majority of EV sales in the world, systems related to EVs and in-vehicle batteries, including reuse and recycling, are about to be quickly established. In collaboration with Chinese government-affiliated organizations, they will consider how to design a system centered on a platform system, including establishing standards for battery reuse and recycling.

After the end of the activity period, they aim to expand the operation business of the platform system for residual value diagnosis in Japan and other parts of the world. Participating companies are about 10 Japanese companies that have strengths in the fields of battery residual value diagnostic technology, rare metal extraction related technology, and related services such as leasing, insurance, and distribution. The activity period is until March 31, 2021. However, related activities will be continued even after the period ends.

Batteries such as lithium-ion batteries, which are the main components of electric vehicles (EVs), have a longer product life than the main body of vehicles, and can be reused as a power source for adjusting renewable energy even after they are no longer suitable for in-vehicle use. Also, depending on the condition of the battery, it can be used in other vehicles by repairing a part of it. Furthermore, when the batteries are finally disposed of, rare metals such as cobalt and nickel can be extracted and recycled, and the economic value of used in-vehicle batteries is recognized. On the other hand, at present, a mechanism for quickly diagnosing the residual value of in-vehicle batteries has not been established.

JRI website: <https://www.jri.co.jp/page.jsp?id=37448> (in Japanese)

Image of EV in-vehicle battery from Panasonic website



### **Succeeded in visualizing cesium in the body**

The National Institutes for Quantum and Radiological Science and Technology (QST) announced on October 15, that they succeeded in visualizing the movement of radioactive cesium taken into the body of living animals by the technology for purifying radioactive cesium that emits positrons. When this was injected into rats and imaged by positron emission tomography (PET), it was confirmed that cesium was distributed in the kidneys and salivary glands. It was a joint research between Tohoku University and QST.

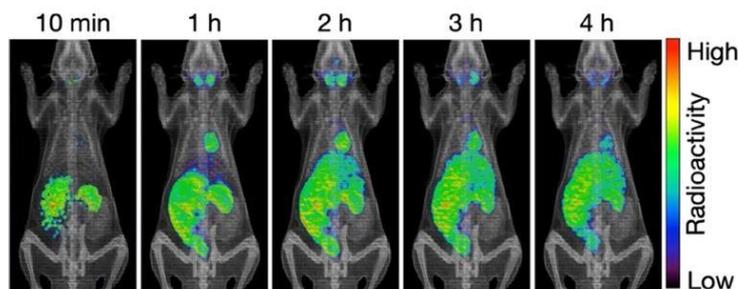
In the accident at TEPCO's Fukushima Daiichi Nuclear Power Station, radioactive cesium "cesium-134" and "cesium-137" were released into the environment. If these movements in the body are known, it is possible to evaluate drugs for quickly excreting cesium taken into the body, which may lead to the development of an in vitro remover for radioactive cesium. The mechanism has succeeded in purifying "127", which has the same movement in the body as this radioactive cesium.

In order to produce the 127 that emits positrons, it is necessary to irradiate the sodium iodide sample with a high-energy helium ion beam accelerated by an accelerator. However, the amount of 127 produced was small, and it was necessary to remove a large amount of sodium ions that were produced at the same time and hindered the experiment. The research group succeeded in

purifying the 127 by removing sodium ions with a material that can collect only cesium.

QST website: <https://www.qst.go.jp/site/qst-english/45317.html>

The distribution of Cs in a living animal visualized by PET imaging  
(From QST website)



### **Kao Corporation support program for small palm plantations in Indonesia**

Kao Corporation announced Oct. 14 that three leading companies in the palm oil industry – Kao Corporation (Japan), Apical Group (Indonesia), and Asian Agri (Indonesia) – have launched a new sustainability initiative to help independent oil palm smallholders in Indonesia improve their yields, acquire international certification, and eventually secure sales premiums from selling certified palm oil.

In the program, the three companies collaborate to provide support to solve the problems faced by small-scale palm plantations. The program is composed of, for example, instructing farm management methods and techniques to improve productivity, while curbing new farm development by increasing yields and supporting the acquisition of certification for sustainable palm oil. The implementation period is 11 years from 2020 to 2030. The number of small-scale palm plantations targeted for support is approximately 5,000 (farmland area of approximately 18,000 hectares).

Palm oil is widely used in processed foods, edible oils, biodiesel fuels, detergent ingredients, etc., and is the most consumed vegetable oil in the world. It is mainly collected from the palm fruits of oil palm produced in Indonesia and Malaysia. On the other hand, the destruction of forest and wildlife habitats in the development of new farms are occurring. And the

human rights violations of indigenous people, the working environment of workers and the child labor are considered to be major social problems.

So far, the three companies have been conducting activities at RSPO (Roundtable on Sustainable Palm Oil) and traceability to farms in order to build a supply chain. On the other hand, small-scale palm plantations, which account for about 30% of palm fruit production in Indonesia, face various issues such as poverty and poor living environment in addition to low productivity due to lack of information on production technology.

Kao Corporation website:

<https://www.kao.com/global/en/news/sustainability/2020/20201014-001/>

Small palm plantation in Indonesia from KAO Corporation Website



### **AOKI releases shirts using Toray's "PET bottle recycled fiber"**

Apparel sales AOKI announced on October 12 that it will release shirts using recycled fiber "& +" derived from Toray's PET bottles at AOKI stores and official online shops nationwide. Not only the material, but also the button of the shirt contains the raw material derived from the collected PET bottle, the attached packing plastic material and the bag also contain the biomass raw material, and the keeper is also made of paper and commercialized with the aim of reducing

the environmental load.

The main unit price is ¥ 3,990 (excluding tax), size S to 3L, and the material is 55% cotton and 45% polyester. In addition to contributing to reducing the environmental burden, it has a shape stabilizing function that simplifies care and an antibacterial and deodorant function that keeps the fabric clean. In addition, a wide button-down collar has been adopted for the soft and elastic pin ox fabric to pursue wearability by liberalizing clothing.

According to the company, it has been difficult to provide stable products because yarns made from recycled materials have problems such as foreign matter contamination and yellowing. This time, it was commercialized because the quality equivalent to that when using virgin raw materials was secured by filtering technology to remove foreign substances and advanced cleaning technology. The company will continue to actively tackle environmentally friendly issues and promote the creation of value that can coexist with society and the community.

AOKI website: <https://ir.aoki-hd.co.jp/ja/news/topics/topics20201012aoki/main/0/link/20201012pet.pdf>  
(in Japanese)

From AOKI website



**Kubota and NVIDIA develop fully autonomous agricultural machine equipped with edge AI**

An agriculture machine manufacturer Kubota announced on October 6 that it has entered into a strategic partnership with Nvidia Corporation (California), which provides a platform for artificial intelligence (AI), in the field of autonomous driving of agricultural machinery.

This will lead to the development of next-generation fully unmanned agricultural machinery that will carry out appropriate agricultural work based on the weather and growing conditions.

For unmanned agricultural machineries, an image recognition is indispensable using an in-vehicle "edge AI" that has both "eyes" which accurately grasp the surrounding situation, and intelligence that instantly determines the next operation.

A semiconductor manufacturer NVIDIA has a wealth of experience in computer graphics processing and advanced computing units. Kubota has been collaborating with the company since 2018 and will accelerate a collaboration in the research and development of completely unmanned agricultural machineries.

Kubota website: <https://www.kubota.co.jp/new/2020/20-66j.html> (Japanese)  
<https://www.kubota.co.jp/rd/concept-tractor/index.html>  
(Japanese)

Concept tractor announced by Kubota in January 2020 from Kubota website



## **NEDO et al. start demonstration operation of hybrid storage battery system at wind farm in Europe**

On October 2, the New Energy and Industrial Technology Development Organization (NEDO) announced they installed a hybrid storage battery system (BESS) at the Vista Wind Farm in Poland for a smart grid demonstration project aimed at expanding the introduction of renewable energy. The trial operation began in June and the full-scale demonstration operation started on September 25.

This demonstration project is being carried out jointly with the Polish Ministry of Climate with the cooperation of Hitachi Chemical Co., Ltd., Showa Denko Materials, Sumitomo Mitsui Banking Corporation and local companies.

The hybrid BESS introduced this time achieves both high performance and low cost by optimally combining a high-output lithium-ion battery with excellent output characteristics and a large-capacity lead-acid battery with a low unit price to meet the required performance. It will be the largest storage battery system in Poland. In the demonstration operation, the effectiveness of the function to mitigate short-term fluctuations in wind power generation and the function to provide the reserve capacity necessary for adjusting the balance between supply and demand will be verified.

Since the amount of power generated by wind power generation fluctuates as the wind speed fluctuates, the supply-demand balance becomes unstable. Appropriate reserves need to be provided to coordinate the conversion.

The introduced hybrid BESS is composed of a monitoring control device (BESS-DCS) between two types of storage batteries: a high-power lithium-ion battery (1MW-0.47MWh) and a large-capacity lead-acid battery (5MW-26.9MWh) of Showa Denko Materials, and power conditioner (6MW) of Hitachi ABB Power Grid Co., Ltd.

In this demonstration, they will verify the effectiveness of each function and contribute to the expansion of the introduction of renewable energy such as wind power generation in Poland. At the same time, Hitachi, Showa Denko Materials and Sumitomo Mitsui Banking Corporation will jointly promote the

study of the system business model, the dissemination potential and finance scheme.

NEDO website: [https://www.nedo.go.jp/english/news/AA5en\\_100429.html](https://www.nedo.go.jp/english/news/AA5en_100429.html)

Hybrid BESS building attached to the Vistra wind farm from NEDO website



### **Suzuki develops the world's first outboard motor micro plastic collecting device**

A vehicle manufacture Suzuki announced on October 1 that it has developed the world's first microplastic collecting device that can be attached to the removable engine "outboard motor" installed on ships. As a result, the microplastic near the water surface can be collected just by sailing. This device will be set as an optional item from 2021, and it is planned to be treated as standard equipment in the future.

The large amount of marine plastic waste that flows into the sea has become a major environmental problem in recent years, and there are concerns about the impact of microplastics that are finely crushed in the natural environment on the ecosystem.

In order to deal with these problems, Suzuki focused on the structure in which the outboard motor runs while pumping a large amount of water to cool the engine and returns the water after cooling, and it is a filter type that can be attached to the return water hose. This device can be installed with a simple

work and utilizes the return water after cooling the engine, so it does not affect the running performance of the outboard motor.

In a monitoring survey conducted in Japan, it was confirmed the microplastic contained in the collected material in the filter. The monitoring survey has been expanded to overseas, and further improvements will be made.

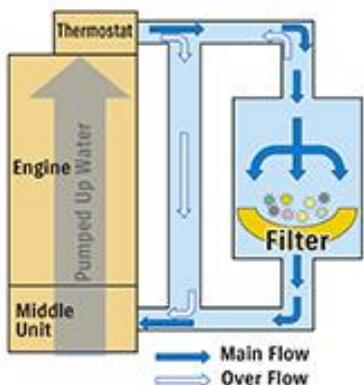
The company launched a new initiative, the Suzuki Clean Ocean Project, which focuses on marine plastic waste. This initiative is Suzuki's concrete efforts to solve social issues indicated by the SDGs .

Suzuki website: <https://www.globalsuzuki.com/globalnews/2020/1001.html>

All the photos as below from Suzuki website



**Outboard motor installed with Micro-Plastic Collecting Device**



**Micro-Plastic Collecting Device**



**Actual micro-plastic waste collected during the monitoring research**

### **Itochu makes full-scale entry into the bio-plastic business of renewable resources in collaboration with European resin manufacturers**

On September 25, ITOCHU Corporation announced that they collaborated with a major plastic resin manufacturer Borealis (Austria) and its group company Borouge (Singapore) to market biomass polypropylene, bio-PP derived from renewable resources. With this agreement, ITOCHU Corporation will make a full-scale entry into the biomass plastic business derived from renewable resources. Borealis started commercial production of bio-PP in March 2020 and is expanding sales to Europe and other parts of the world. This agreement is the first in Asia.

This bio-PP uses renewable raw materials such as waste and without food competition, which are called "second generation raw materials", and waste cooking oil. In addition, the traceability from raw materials to products is ensured by the certification of a third-party independent organization.

In the Japanese market, they aim to develop Japan's first food containers and packaging materials made from bio-PP by the end of 2020, as well as a variety of other hygiene products, daily necessities, cosmetic containers, office supplies, home appliances, automobile parts, etc.

ITOCHU aims to improve corporate value by solving social issues through the biomass plastic business. In the future, they will utilize the ITOCHU Group's network in Japan and overseas to create a new business model in the field of biomass plastics, and promote development especially in the Japanese and Asian markets.

In order to respond to a wide range of issues such as the marine plastic waste problem and global warming, Japan has a strategy "Plastic Resources" to comprehensively promote the recycling of plastic resources based on the basic principle of 3R + Renewable. "Circulation strategy" was formulated in May 2019. The goal of introducing about 2 million tons of biomass plastic products by 2030 is included in this, and it is required to switch to biomass plastics that can promote environmental consideration while maintaining the superiority of plastics.



On the other hand, polypropylene, which is one of the main raw materials for plastics, is characterized by its strong strength and heat resistance, and is used in a wide range of applications such as food containers, daily necessities, and automobile parts, but it is difficult to make it into a biomass raw material. It has been considered expensive and difficult to industrialize.

ITOCHU Corporation: <https://www.itochu.co.jp/en/news/press/2020/200925.html>

Product of polypropylene from Borealis website



### **Full-scale provision of the world's first EV-only navigation app**

The New Energy and Industrial Technology Development Organization (NEDO) and Kanematsu Corporation announced on September 24 that they have started full-scale provision of the EV Co-Driver, a navigation app for smartphones, which they have been working on since 2015 in California, USA. With this app, EV drivers can instantly display the shortest route based on not only the driving route and time but also the waiting time and charging time at the charging station by simply entering the destination and remaining battery power.

In addition, even after departure, it has a function to re-search the shortest route that avoids power shortage in real time according to the route change and the congestion situation of the station and to navigate turn-by-turn. With these functions, the EV driver reduces psychological anxiety about deficiencies. This is the world's first navigation app with comprehensive functions specialized for

EV drivers.

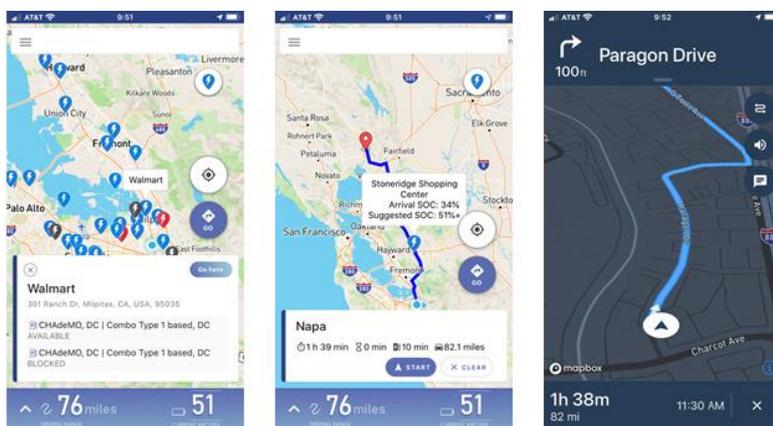
The United States has been paying attention to EVs from early on and is implementing various initiatives. On the other hand, the charging infrastructure is limited to urban areas, so the current situation is that using EV is limited to short-distance travel. Against this background, the NEDO, Nissan Motor Co., Ltd., and Kanematsu Corporation have been developing a quick charging network and real-time information in California since 2015.

In this demonstration project, 55 EV quick chargers with an output of 50 kW and two ultra-high-speed EV chargers with a high output of 100 kW installed at 26 locations of approximately 530 km from Monterey by the sea to Lake Tahoe. In terms of software, They introduced the real-time information application for smartphones "DRIVE the ARC", which they have been providing for EV drivers since November 2016.

Until now, when an EV driver goes out or drives to an unfamiliar place, in order to avoid the risk of power shortage and drive safely to the destination, searches the navigation route and charger operating status with each application in advance. In order to eliminate the inconvenience of EV drivers, "EV Co-Driver" displays the location of the charging station, the specifications, number of chargers and operating status of the charger, and the user simply inputs the destination and the remaining battery level.

NEDO website: [https://www.nedo.go.jp/english/news/AA5en\\_100430.html](https://www.nedo.go.jp/english/news/AA5en_100430.html)

“EV Co-Driver” screenshots from NEDO website



### **Iberdrola develops large-scale offshore wind farm in Japan**

Spanish power giant Iberdrola announced on September 17 that it will launch an offshore wind power joint venture in Japan with Green Investment Group (GIG), a subsidiary of the Australian investment bank Macquarie Group. Iberdrola will acquire Acacia Renewables, a renewable energy business development company owned by McCawley Capital (formerly the Japanese subsidiary of the British renewable energy development company RES), as a stepping stone to enter Japan. Acacia Renewables' existing businesses other than offshore wind power will be taken over by GIG, and Iberdrola will specialize in offshore wind power generation in Japan.

Acacia Renewables owns six offshore wind power projects in Mitsui Fudosan and Kagoshima prefecture, including a total of 1.2 gigawatts (GW) in Osaka Gas and Saga prefecture, for a total of 3.3 GW. Three of them will adopt floating technology, which is expected as a next-generation offshore wind power generation system. In Japan, where there are few shallow seas, it is not necessary to fix the generator to the seabed, and floating technology suitable for deep water is the key to the spread of offshore wind power.

Iberdrola is the fifth largest wind farm in the world. Since 2010, they have been developing an offshore wind farm in the British North Sea through Scottish Power, a major British electric power company under the umbrella, and in August 2020, "East Anglia One" will start full-scale operation. Furthermore, from 2022, the construction of the world's largest "East Anglia Hub" (3.1GW) is scheduled to begin. In addition to holding 15GW projects (including development plans) in the United Kingdom, Germany, France and the United States, it also acquired interests in the offshore wind power generation project (9GW) scheduled to be developed in Sweden in June 2020. Japan became the next investment destination.

Iberdrola website: <https://www.iberdrola.com/press-room/news/detail/iberdrola-targets-japan-growth-platform-renewables>

Image of the offshore wind generator of Iberdrola from Iberdrola website



**UNIQLO launches customer participation type "RE.UNIQLO" to release 100% playback down**

FAST RETAILING CO., LTD., which operates Global apparel retailer UNIQLO, announced on September 17 that it starts a customer-participation-type initiative, "RE.UNIQLO," to collect UNIQLO clothes that customers no longer need, to add new value to the clothes, and to utilize them for the next time.

As the first new product of this initiative, "Recycled Down Jacket" was released on November 2. This product uses 100% down and feathers from 620,000 down products collected in Japan in 2019. The price is 7,990 yen (excluding tax) and is available in 4 colors.

They expand the collection activities of down products globally, and from the end of September, they started collection campaigns in 21 countries and regions around the world including Japan. The company said, "We will start with down products as a new initiative that can contribute to the environment and society through a small change in behavior of not throwing away clothes."

The "RE.UNIQLO" launched this time is the case which further evolved the efforts that have been promoted as "all product recycling activities" since 2006. In addition to reusing clothes (REUSE), they are promoting recycling (RECYCLE), in which clothes newly collected with the cooperation of customers are reborn and re-provided as new products.



Through these efforts, they are poised to further reduce (REDUCE) excess waste, CO2 emissions, and resource usage throughout the product life cycle. The company has been making more sustainable products by adopting sustainable materials and reducing the amount of resources such as water used in the production process.

Fast retailing website:

<https://www.fastretailing.com/eng/sustainability/news/2009171600.html>

From Fast retailing website

