

JAPANESE INDUSTRY AND POLICY NEWS July-August 2020

LEGISLATION AND POLICY NEWS

Japan-UK EPA negotiation is almost concluded

The Minister of Foreign Affairs, Mr. Toshimitsu Motegi said at a press conference on August 7 that he has already agreed on most of areas of the EPA negotiations with the UK and aims to reach a general agreement by the end of August. He visited the UK from August 5 to 8 and had the meeting with The Rt Hon Elizabeth Truss MP, Secretary of State for International Trade and President of the Board of Trade of the UK. The following is a summary of the statement by the Minister.

1. The two ministers have reached a consensus on the Japan-UK Economic Partnership, which entered into negotiations on June 9, this year, in substantial agreement in most of the entire 24 chapters, agreeing on major issues, and aiming for a broad agreement by the end of August.
2. In the fields of investment and services, e-commerce, competition policy, etc., high standard contents that exceed Japan-EU EPA, for example, provisions regarding prohibition of disclosure requirements of algorithms and provisions regarding consumer protection will be included. We are currently working on the details.
3. The Japan-UK Economic Partnership will further expand trade and investment between Japan and the UK. The two ministers agreed to accelerate the remaining work with the aim of coming into effect from January 1, 2021, from the perspective of ensuring the smooth continuation of business in both countries.

For Japan, the UK's withdrawal from the EU could disrupt the supply chain with the continent. Although Honda announced its withdrawal, Nissan and Toyota will need to secure alternatives to their supply chain in order to continue vehicle production in the UK. Urgently reaching a conclusion of negotiations is needed for Japan.



MOFA website: https://www.mofa.go.jp/erp/we/page25e_000335.html



Meeting between two ministers from MOFA website

The Government extends employment adjustment subsidy

A total of 437 people were newly infected with COVID-19 in 29 prefectures on Aug. 31. In Tokyo, 100 people were found to be positive, surpassing 100 people for seven consecutive days. Also, infections have been confirmed in 53 people in Osaka, 50 people in Kanagawa, and 23 people in Okinawa. With this, more than 32,000 infected people were confirmed in August, about twice as many as in July.

Although the number of new infections is declining, the situation remains severe, and there is a concern that the economic recovery is delayed. In particular, there are many cases where maintaining corporate activities is difficult for the service industry, which often includes small and medium-sized companies.

In response to these developments, the Ministry of Health, Labor and Welfare (MHLW) has decided to extend the deadline, which is the end of September, to the end of December for special measures such as raising the upper limit of the employment adjustment subsidy. The employment adjustment subsidy is a system in which the government subsidizes some of the leave allowances, if the company keeps the employment.

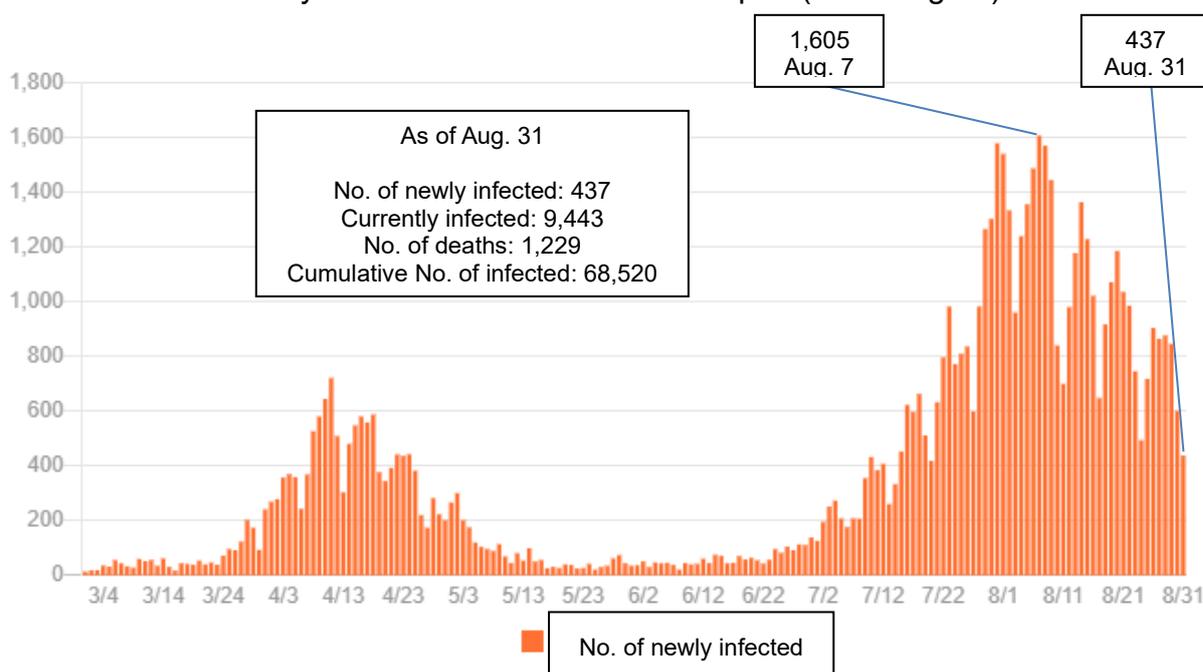
Since February this year, MHLW has taken special measures for companies affected by COVID-19, such as easing payment requirements and raising the daily maximum to ¥ 15,000. In addition, the Ministry will extend to the end of December the system to support those who have not received the leave allowance from their companies.

However, while there are measures to extend support, the government wants to gradually reduce special measures after January 2021 unless the employment situation deteriorates significantly. As the impact of the spread of COVID-19 on the economy is expected to continue, how to secure the necessary financial resources and protect employment are issues for the future.

MHLW website:

https://www.mhlw.go.jp/stf/kaiken/daijin/0000194708_00271.html (in Japanese)

No. of newly infected with COVID-19 in Japan (as of Aug.31)



From Yahoo website

"GoTo Travel" campaign, 4.2 million overnight stays a month

Minister of Ministry of Land, Infrastructure, Transport and Tourism (MILT), Mr. Akaba reported at a press conference on August 25, about the "GoTo Travel"

campaign started on July 22, from July 27 to August 20, the total number of users was about 4.2 million nights (*The Minister revised to 5.66 million nights on September 1).

The "GoTo Travel" campaign is a national subsidy of up to 50% on domestic travel expenses in order to revive the tourism business that is at stake in COVID-19. The maximum benefit is 20,000 yen per person per night, and there is no limit on the number of consecutive nights or usage. The maximum price for a day trip is 10,000 yen. Currently, 35% of the price is paid and after September, a 15% regional common coupon will be added to this. However, as of the end of August, citizens in Tokyo, where there are many people infected with COVID-19, cannot use this campaign. On the other hand, this system does not apply to foreign tourists from overseas, but it can be used by foreigners residing in Japan other than Tokyo.

Regarding the usage pattern of the campaign, the minister said, ``Given the track record of the use of Shinkansen and aircraft during the 'Obon vacation' period was low, short-term travel and overnight stays by car were increasing, and it is still too early to evaluate the overall business''. But he said the government would continue and promote the business while thoroughly implementing measures to prevent the spread of infection.

According to the minister, 49% of all accommodation operators and 58% of travel agents registered in this campaign. He said, "If the number of operators currently applying is included, the registration level is over 60%. I think that it will firmly support the local economy in this autumn, winter and next spring."

On the other hand, on September 2, the Japan Association of Travel Agents (JATA) announced that the number of reservations by destination in August using a major travel site exceeded the same month last year in 32 prefectures. It seems that the usage increased because of the discount of "Go To Travel". However, in addition to regional variations, luxury inns are becoming more popular, and measures to prevent bias are likely to be needed. According to the JATA data, Wakayama prefecture had the highest number of reservations, with 187.8% compared to the previous year, followed by Nara prefecture at 164.1% and Tokushima prefecture at 149.4%.

MLIT website:

<https://www.mlit.go.jp/report/interview/daijin208025.html> (in Japanese)

<https://goto.jata-net.or.jp/> (in Japanese)



Travel image from Honda website: Kumano city, Mie Pref.

Export of black pine Bonsai to EU is possible from October 1

The Ministry of Agriculture and Fisheries announced on August 28 that the export of Japanese black pine Bonsai (a dwarfed potted plant) to the EU is possible from Oct.,1. Until now, the EU has banned the import of Japanese black pine bonsai on the grounds that Japan has a pest.

The Ministry of Agriculture, Forestry and Fisheries has been carrying out technical discussions with the EU phytosanitary authorities to enable export of Japanese black pine Bonsai based on requests from the production areas. As a result, the EU regulations have now been revised, and it will be possible to export.

According to the Ministry, the annual export value of bonsai is about ¥ 10 billion. The main export destinations are China, Vietnam and Hong Kong, but recently it has become popular in the EU such as Germany, Italy and Spain as the common language "BONSAI".

For actual export, the plant quarantine station requires quarantine, but the main export requirements are as follows.

1. Cultivate and manage the field for two consecutive years at a field registered at the plant quarantine station.
2. Have a plant quarantine inspection at least 6 times a year.
3. Culture materials should be sterilized or unused without organic matter.
4. To prevent nematodes from entering, place it on concrete or on a shelf with a height of 50 cm or more.
5. Apply pesticides against rust.
6. Passes the export inspection conducted by the plant quarantine officer without the attachment of pests subject to quarantine thing.
7. To ensure traceability by attaching a label.
8. After export, it should be isolated and cultivated in the destination country for 3 months or more, and no pests subject to quarantine shall be found.

MAFF Plant Protection Stations website :

https://www.maff.go.jp/pps/j/information/language_top.html

MAFF website: <https://www.maff.go.jp/j/press/syouan/syokubo/200828.html>

(in Japanese)



KUROMATSU (Black pine=Pinus thunbergii) Bonsai from MAFF website

SURVEY AND BUSINESS DATA

Real GDP from April to June, reduced by 27.8% at annual rate

The preliminary GDP growth rate for the April-June quarter announced by the

Cabinet Office on August 17 was decreased by 7.8% to the previous quarter in real terms and dropped by 27.8% at annual rate. Despite being somewhat milder than the negative margins of major European and American countries, negative growth has continued for three consecutive quarters, and the rate has been the largest ever since 1980.

Following this government announcement, the Japan Center for Economic Research, a major private economic research institute, has announced its economic forecasts for 2021. The outline of the forecast is as follows, and it is likely that Japan's economic growth will turn positive in 2021 and that it will depend on external demand such as China.

- By the end of this fiscal year, the number of newly infected of COVID-19 in Japan will decrease, and with appropriate quarantine measures steadily becoming routine, people's economic and social activities will become active. In the next fiscal year, the warning mode against the virus will be clearly reduced for some reason such as the sedation of the number of infected people and obtaining the vaccine.
- Assuming that such a scenario of COVID-19 evacuation also applies to most major overseas countries, the overseas economy will recover steadily after hitting a big bottom in the April-June period. The weighted average of the overseas real GDP growth rate by the amount of exports from Japan is -2.5% in 2020 and 5.9% in 2009. In particular, the future of the Chinese economy is bullish.
- The employment and income environment in Japan will steadily deteriorate, and the more severe situation is predicated in the January-March period of 2021 (forecast unemployment rate: 3.8%). However, the employment and income environment will improve after the beginning of the next fiscal year, with exports and production backed by strong overseas demand throughout the forecast period.
- While the development of such an employment/income environment and the manifestation of postponed demand (pent-up demand) are intermingled, private consumption will increase and decrease. The recovery will be



moderate over the forecast period.

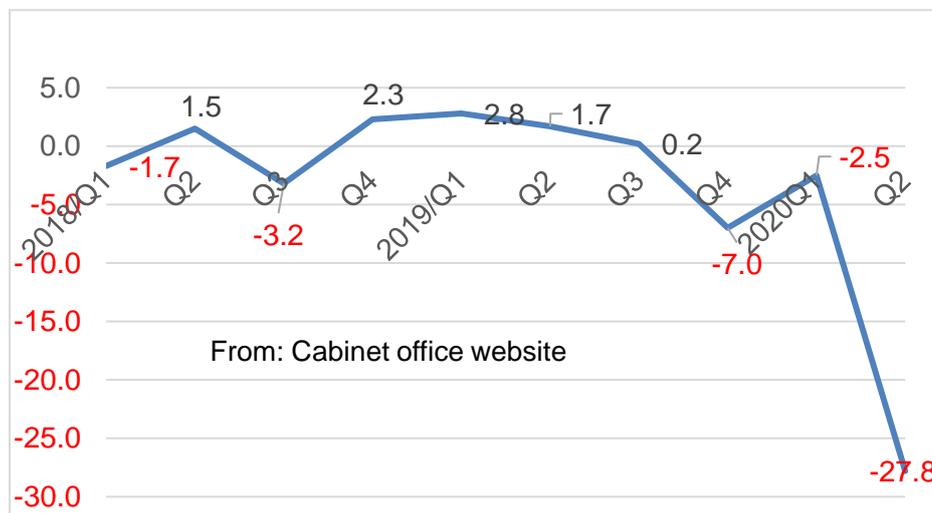
- Reflecting the above movements, corporate profits will recover relatively smoothly throughout the forecast period. This will lead to a nearly V-shaped recovery in business fixed investment in the easing financial environment.

Cabinet office website:

<https://www.esri.cao.go.jp/en/sna/data/sokuhou/files/2020/qe202/gdemenua.html>

JCER website: <https://www.jcer.or.jp/economic-forecast/20200817-2.html>

Real GDP annual growth rate (% by quarter) of Japan



About 270,000 small and medium companies will close business?

The spread of COVID-19 is affecting the survival of companies. According to the interim result of the questionnaire survey conducted by Tokyo Shoko Research (TSR), the proportion of small and medium companies who responded that "there is a possibility of considering business closure when the COVID-19 is prolonged" is 7.7%. By the government's "2016 Economic Census-Activity Survey," the number of SMEs is 3,578,176. By simple calculation, it means that nearly 276,000 SMEs are considering closing the business.

In addition, about half (45.1%) of the SMEs that indicated the possibility of closing their business are thinking of closing their business within a year. Depending on the end of COVID-19, about 124,000 small and medium

companies may decide to close their business within the next year. The percentage of small and medium-sized companies that say they are out of business is likely to continue to increase.

*This survey is conducted on the internet from July 29, 2020, and the interim total of 6,638 companies' responses were received by 14:00 on July 31.

*Capital of 100 million yen or more is defined as "large companies" and less than 100 million yen (including individual companies) is defined as "small and medium companies".

*The definition of SMEs in this survey differs from the definition of "economic general survey".

Q1. Is there a possibility of "close business" (close all businesses) if COVID-19 erosion is prolonged?

- "Yes" was 6.6% (438 out of 6,638 companies), and "No" was 93.4% (6,200 companies). By size, 0.8% (9 out of 1,087 companies) of the large companies answered "yes", while 7.7% of small and medium companies answered "yes" (429 companies out of 5,551 companies), more than 9 times the difference.

Q2. In case of answered "Yes" in Q1, when do you consider it?

- Among the companies that answered "Yes" in Q1, 44.9% (196 companies) answered "Within a year". By size, "within a year" for large companies was 33.3% (3 out of 9), while 45.1% for small and medium companies (193 out of 427).

TSR website: https://img03.en25.com/Web/TSR/%7B77d81e12-3d3e-44a4-a8eb-51cdcd64e157%7D_20200818_TSRsurvey_CoronaVirus.pdf

January-July trade statistics, exports to China increased for the first time in seven months

According to the trade statistics of customs clearance basis in July 2020, released by the Ministry of Finance on August 19, exports decreased by 19.2% compared to the same month last year due to a decrease in vehicles and auto parts. Imports also declined by 22.3% due to a decrease in crude oil and liquefied natural gas. COVID19 reduced exports for 20 months and imports for

the 14th consecutive month, while exports to China turned to an increase of 8.2% for the first time in 7 months.

Increasing exports to China was brought by the country's economic recovery. For example, vehicle market in China. According to the China Association of Automobile Manufacturers (CAAM), the number of new vehicles sold in July increased by 16% year-on-year to 2.11 million units. After May, it will continue to increase by more than 10% for 3 consecutive months. Among them, the demodulation of Japanese automotive manufacturers is clear. Toyota, Honda and Nissan have set record highs for sales in China in July.

Semiconductor manufacturing equipment is also doing well. Demand for semiconductors such as fifth-generation communication (5G) is solid, and investment in memory, logic, and contract manufacturing of semiconductors (foundry) has been activated. As the global economy continues to stagnate, Japanese companies are likely to continue to drive business results for China for the time being.

- Exports & Imports with China (Jul. 2020)

	Value (Billions of JP Yen)	% to Jul. 2019	Reference
Exports	1,329.0	+8.2	Increased for the first time in 7 months
Imports	1,456.4	-9.8	Decreased for the first time in 2 months
Balance	-127.4	-66.9	In red 5 months continuously

- Movement of principal goods with China

Export goods	% to Jul. 2019	Import goods	% to Jul. 2019
Non-ferrous metal	+72.4	Computers	+25.5
Semiconductor manufacturing equipment	+23.6	Textile products	+38.2
Vehicles	+19.0	Apparels	-22.7
Organic chemicals	-30.6	Automotive parts	-44.1
-	-	Computer parts	-34.4

- Exports & Imports with EU (Jul. 2020)

	Value (Billions of JP Yen)	% to Jul. 2019	Reference
Exports	439.3	-30.5	Decreased 12 months continuously
Imports	651.7	-14.3	Decreased 7 months continuously
Balance	-212.4	+65.7	In red 13 months continuously

- Movement of principal goods with EU

Export goods	% to Jul. 2019	Import goods	% to Jul. 2019
Vehicles	-48.5	Medicines	+10.5
Auto parts	-46.9	Aircrafts	-84.9
Engines	-49.6	Science optics	-25.2
-	-	Electrical measuring equipment	-35.7

COMPANY & Organization NEWS

JOGMEC conducts world's first successful excavation of cobalt-rich in the deep ocean

The Japan Oil, Gas & Metals National Corporation (JOGMEC) commissioned by the Japan Ministry of Economy, Trade and Industry (METI), has conducted the world's first successful excavation test of a cobalt-rich crust on the seabed of Japan's exclusive economic zone (EEZ), marking a major technological step forward in the development of its ocean mineral resources. JOGMEC announced on Aug. 21.

JOGMEC's prior research revealed the possibility of a significant amount of cobalt and nickel - two essential ingredients for batteries - on the seabed, and it is expected to become a valuable domestic resource in the future. In collaboration with industry, academia and the government of Japan, the tests were held under various conditions, including over sloping and sandy seabed.

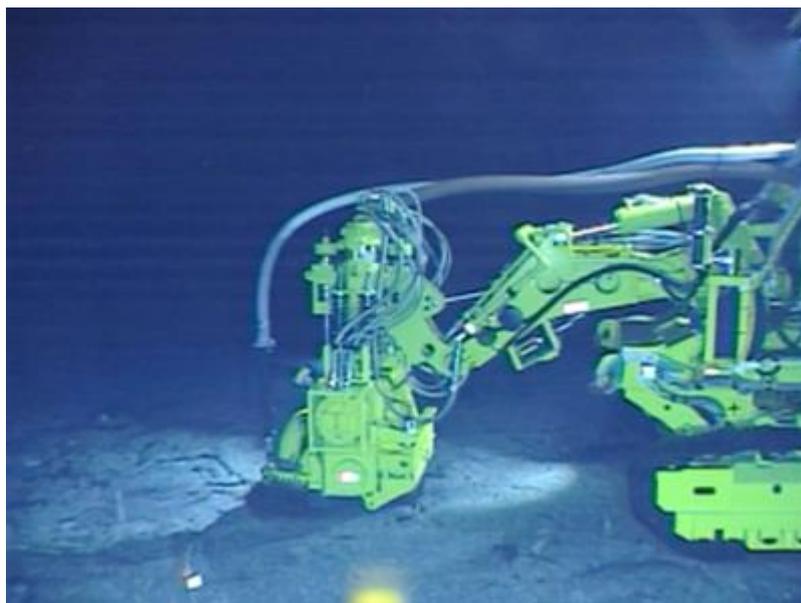
The team also carefully monitored for any impact on the surrounding environment, prior, during, and following the excavation of the crust to rule out

any serious environmental impact. Using a crust-excavation testing machine, JOGMEC collected 649 kilograms of cobalt and nickel-rich seabed crust during a world-first test in July, 2020.

According to prior research, it is expected that the area tested around “the Takuyo No. 5 Seamount” contains enough cobalt to meet Japan’s demand for 88 years and enough nickel to meet Japan’s demand for 12 years. Regarding these series of efforts, JOGMEC says that it is a big step towards establishing the technology necessary for the development of Japan’s marine mineral resources.

JOGMEC website:

http://www.jogmec.go.jp/english/news/release/news_01_000033.html



The machine on the seabed from JOGMEC website

MHI successfully launches the Emirates Mars mission, HOPE spacecraft

July 20, 2020, Mitsubishi Heavy Industries, Ltd. (MHI) announced they successfully delivered the Emirates Mars Mission’s (EMM) HOPE spacecraft developed by the UAE Mohammed Bin Rashid Space Centre (MBRSC) into orbit today via the H-IIA launch vehicle F42. The launch vehicle trajectory was executed as planned, and at about 57 minutes after liftoff, separation of the HOPE spacecraft was confirmed. The H-IIA launch vehicle is one of the most

reliable launch vehicles in the world, and with this 45th consecutive successful H-IIA/H-IIB launch, the vehicle now has an accumulative success rate of 98.0%.

This Mars exploration mission aims to arrive at Mars, as the first unmanned explorer from the Middle East in 2021 celebrating the 50th anniversary of UAE's founding. The EUA Space Agency which was established by the UAE federal government by seven Emirates in July 2014 is supervising and the UAE Space Agency, MBRSC is coordinating technical aspects such as HOPE design.

The country is focusing on strengthening science and technology fields such as space exploration in order to escape from an economy that depends on resources such as oil. They are in the process of Mars migration plan in 2117.

MHI stressed that today's launch is the second H-IIA launch for the UAE government, following the observation satellite, Khalifasat, launched in 2018. The Emirates Mars Mission targets to reach Mars in 2021 to commemorate the 50th anniversary of the founding of the UAE and we are proud of this success. And taking advantage of this successful launch, the MHI Group intends to proactively expand its sales activities in the satellite launch transportation service market in Japan and overseas.

MHI website: <https://www.mhi.com/news/story/20200720.html>



Tanegashima space center in kagoshima pref.(left) and Mohammed Bin Rashid Space Centre in Dubai from NHK News web

Succeeded in the world's first technical verification test of a dry low NOx hydrogen combustion gas turbine

NEDO announced on July 21 that NEDO, Kawasaki Heavy Industries, Ltd. and Obayashi Corporation, these three organization and companies succeeded in the technology demonstration test of dry low NOx gas turbine utilizing the "micromix combustion" technology developed by Kawasaki Heavy Industries, for the first time in the world. The dry combustion method has higher power generation efficiency than the conventional method and can reduce NOx emissions.

They also plan to start technical verification of a system that supplies heat and electricity generated from this hydrogen gas turbine to neighboring facilities from this fall in Kobe City, to ensure stable operation of hydrogen power generation by the dry combustion method, power generation efficiency and environmental load.



Test plant of a dry low NOx hydrogen combustion gas turbine
from NEDO website

Compared to the water injection method, the dry combustion method has higher power generation efficiency and can reduce NOx emissions, but the problem was how to stabilize the combustion while suppressing the backflow of the flame in hydrogen combustion, which has a high combustion speed. To solve this problem, Kawasaki Heavy Industries has developed the world's first dry low NOx hydrogen combustion gas turbine by utilizing the combustion technology

"micromix combustion" that uses minute hydrogen flames.

A cogeneration system that combines this hydrogen gas turbine and an exhaust heat recovery boiler can supply about 1,100 kW of electric power and about 2,800 kW of thermal energy to the public facilities in the vicinity by steam or hot water.

NEDO website: https://www.nedo.go.jp/news/press/AA5_101337.html

(in Japanese)

JETRO opened the Desk at Foreign Residents Support Center (FRESC)

The Japan External Trade Organization (JETRO) opened "JETRO Highly-Skilled Foreign Professionals Promotion Desk" at the Foreign Residents Support Center (FRESC) and started operations from July 1.

Opened by the government, FRESC is a counseling center that brings together the relevant government contact points to support the residence of foreigners living and active in Japan. In FRESC, JETRO Highly-Skilled Foreign Professionals Promotion Desk helps Japanese small and medium-sized enterprises who want to utilize international talent and innovation. For the purpose of realization, JETRO disseminate information through events such as seminars, support the recruitment and utilization of highly-skilled foreign human resources by specialized counselors, and carry out training and retention programs.

JETRO launched the Advanced Foreign Human Resource Promotion Platform in 2018 to promote the utilization of foreign human resources with advanced skills and knowledge through (1) Business cooperation beyond the boundaries of related ministries and agencies (2) Information transmission through a portal site that centralizes related measures, and (3) Accompaniment-type support (hands-on support) for interested companies by specialized counselors. By installing the JETRO DESK in FRESC as the relevant government agencies, it is possible to provide even more detailed support.

***About Foreign Resident Support Center (FRESC)**

Opened as a general government office that supports foreign residents. They will provide consultation for foreigners and for supporting companies that want

to hire foreigners, and support local governments working to support foreigners. The center will improve the environment for accepting foreigners by coordinating with the related organizations that will move in and implementing various support measures regarding the stay of foreigners.

FRESC website: <http://www.moj.go.jp/nyuukokukanri/kouhou/fresc01>

JETRO portal site: <https://www.jetro.go.jp/en/hrportal/>



FRESC consulting booth from FRESC website

Sony released wearable air conditioner

Sony Corporation announced on July 1 that a wearable air conditioner, “the Leon Pocket” was launched, which is a portable device that allows to cool or warm the body surface of the contact area by wearing. It is used in the pocket at the neck of the special underwear. The temperature can be set in 4 levels for each cold or hot temperature via a dedicated smartphone application that is linked with Bluetooth connection.

The color of “the Leon pocket” is white only, and the price is ¥13,000 (excluding consumption tax). Dedicated underwear is ¥1,800 yen. There are white and beige, and prepared three sizes of SML. Rapid cooling and heating can be performed by energizing the thermo module (Peltier element). It has a built-in lithium-ion secondary battery and can be used for about two and a half hours during cooling operation.

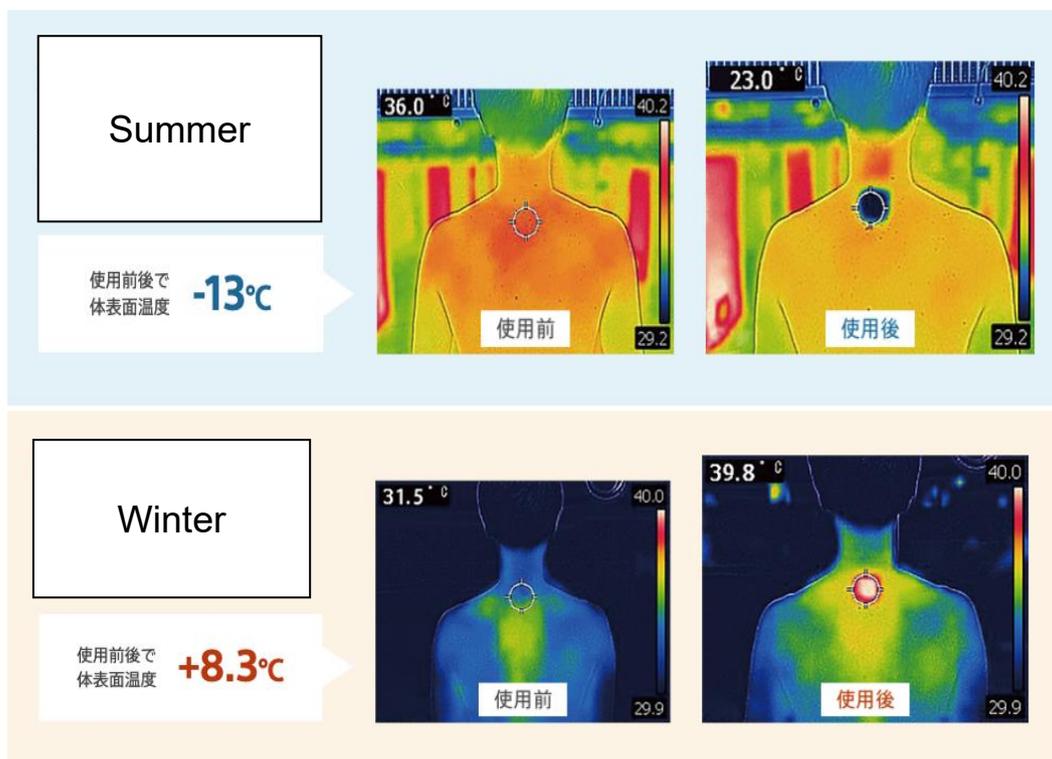
It weighs about 89 grams only, so it can be worn comfortably in appearance,

too. In an experiment conducted at room temperature of 30°C in a resting state, the body surface temperature of the device-contacting portion decreased by about 13°C, 5 minutes after wearing. Leon Pocket is a product born from Sony's program that supports the creation of startups and business operation.

Sony website: <https://first-flight.sony.com/pj/reonpocket>



From Sony website



Thermograph thermometer from Sony website

Toyota and Honda to Begin Demonstration Testing of a Mobile Power Generation

Toyota Motor Corporation (Toyota) and Honda R&D Co., Ltd. (Honda) announced on Aug. 31 that they create a mobile power generation/output system, “Moving e”, that consists of a fuel cell bus that can carry a large amount of hydrogen, portable external power output devices and portable batteries, and will begin demonstration testing of the system’s ability to deliver electricity anytime and anywhere.

When a power grid is damaged during a disaster such as typhoons and rainstorms, people suffer from an interruption in the supply of power to their homes and evacuation centers. To address this issue, Toyota and Honda will bring technologies together to create a mobile power generation/output system and conduct demonstration testing of delivering electricity to people.

Taking advantage of its mobility, “the Moving e” can be utilized as a “phase-free” system which can be used in times of a disaster to support disaster response by supplying electricity in an affected area, as well as in normal times for routine uses such as supplying power at an event. Through this demonstration testing, the two companies will confirm the actual needs of people and verify usability of the system.

The CHARGING STATION loaded with all equipment will be driven to the place and “the Moving e” will supply electricity in actual locations. More specifically, portable external power output devices and portable batteries will be used to take electricity out of the fuel cell bus, which serves as a power source, and feed electricity to electrical appliances.

Developed based on the previous version of Toyota FC bus, the CHARGING STATION fuel cell bus is equipped with twice as many high-pressure hydrogen tanks that significantly increased the amount of hydrogen it can carry, enabling the CHARGING STATION to feature a high-output and large-capacity power generation capacity (generates 454kWh with maximum output of 18kW).

In case of power outage during a disaster, this large capacity enables “the Moving e” to supply electricity in indoor areas such as an evacuation center, as

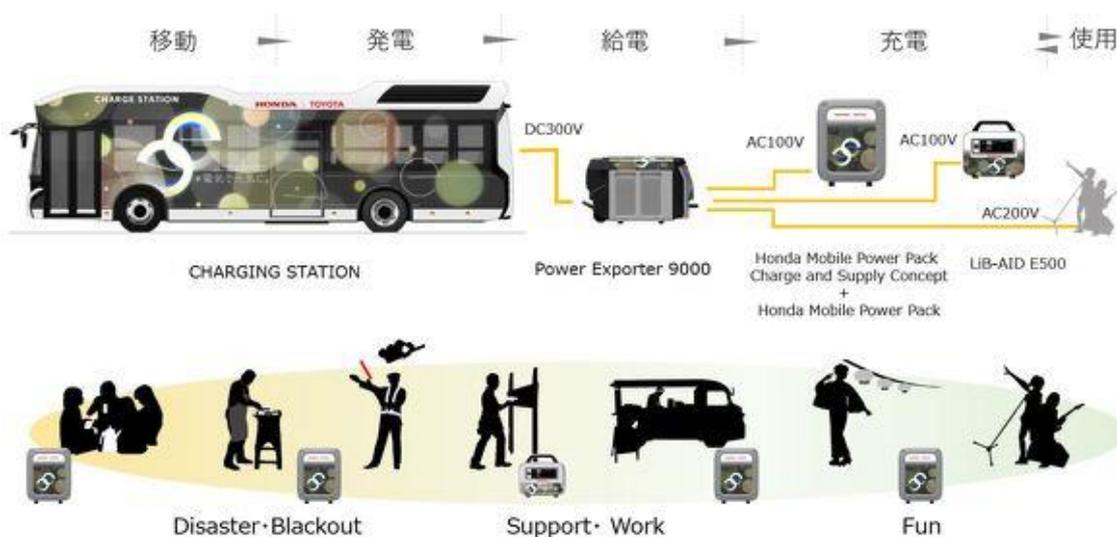
well as inside vehicles by storing electricity generated by the CHARGING STATION in large-capacity portable batteries, namely Honda Mobile Power Packs and LiB-AID E500 via the Power Exporter 9000.

The two companies will verify the effectiveness of “the Moving e” mobile power generation / output system as a phase-free system through various uses by municipalities and businesses which fulfill the necessary conditions and are willing to cooperate with the testing.

Honda website: <https://global.honda/newsroom/news/2020/c200831eng.html>

Toyota website: <https://global.toyota/en/newsroom/corporate/33598951.html>

Image of “the Moving e” from Toyota website



The CHARGING STATION from Toyota website

Demonstration project begins for commercialization of FC vessels

NYK Line, Toshiba Energy Systems & Solutions Corporation, Kawasaki Heavy Industries Ltd., Nippon Kaiji Kyokai (Class NK), and ENEOS Corporation (i.e., “the Companies”) announced on Sept. 1 that the New Energy and Industrial Technology Development Organization (NEDO) has approved the Companies’ participation in a demonstration project for the commercialization of high-power Fuel Cell (FC) vessels. The project, which will begin in September 2020, is Japan’s first effort to develop a commercially available FC vessel and carry out a demonstration operation involving the supply of hydrogen fuel. By using FCs as a power source, it will be possible to completely eliminate greenhouse gas (GHG) emissions during navigation.

The Companies will develop an about 150 ton class (passenger capacity: approx. 100) high-power FC vessel that will function as a medium-sized tourist ship, and in 2024 carry out a demonstration operation of the FC vessel together with a demonstration supply of hydrogen fuel. The FC vessel to be developed is 25 meters long, 8 meters wide and the fuel cell to be installed is planned to be equipped with an output of about 500 kW class.

With the entry into force of the Paris Agreement in 2016, global momentum for decarbonization has increased, and reducing GHG emissions has become an issue in the shipping sector. In 2018, the International Maritime Organization (IMO) set a goal of halving GHG emissions from the international shipping sector by 2050 and reaching a target of zero as early as the end of this century.

The utilization of FC systems in transport beyond passenger cars is cited as an issue in the action plan of industry, academia, and government for the realization of a hydrogen society in the “Strategy for Developing Hydrogen and Fuel-Cell Technologies ” formulated by the Japanese government in 2019. From the development of small FC vessels (gross tonnage less than 20 ton) that have already been promoted in Japan, the spread and expansion of high-power FC to larger vessels is expected.

Toshiba website: https://www.toshiba-energy.com/en/info/info2020_0901.htm

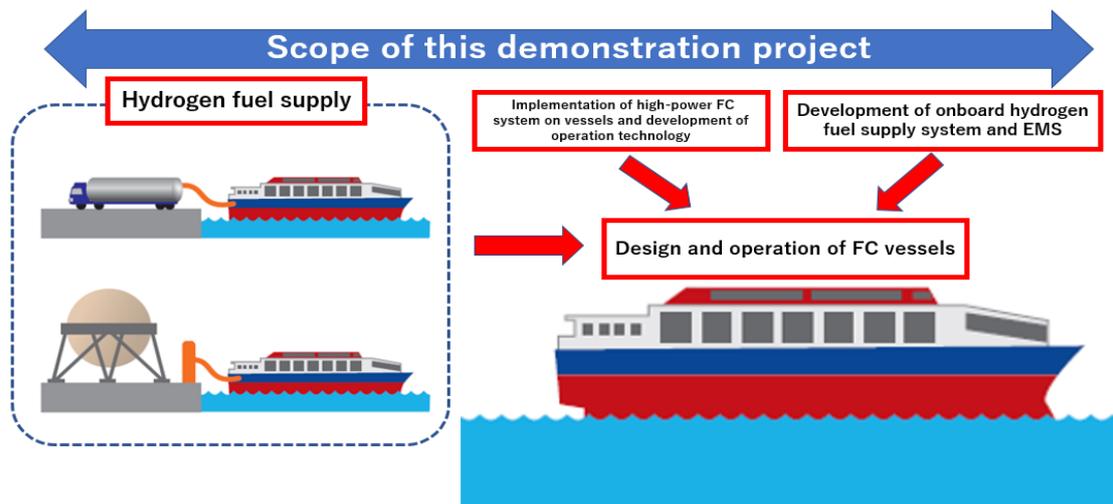


Image of the project from Toshiba website

RIKEN and JAXA collaborate to offer real-time rainfall forecasts

RIKEN (National Institute), Chiba University, the University of Tokyo, and the Japan Aerospace Exploration Agency (JAXA) developed a combination system of satellite data and supercomputer simulations to offer five-day rainfall forecasts over the Internet covering the globe. The four organizations and universities above mentioned announced on Aug. 20.

The new system combines a variety of techniques, particularly precipitation nowcasting(*) and numerical weather prediction, to come up with predictions that rely on the strengths of the different techniques that are accurate on a variety of time scales.

*Nowcasting: A method for predicting future precipitation distributions by observing the latest movements of precipitation distributions from observation data and assuming that the movements continue.

Under the project, which began in 2013, the group of researchers began experimenting with ways to make more accurate rainfall forecasts. The latest advance was combining two different precipitation forecast data. Up to 12 hours later, it has become possible to perform highly accurate precipitation forecasts by integrating precipitation nowcasts and numerical weather forecasts. From 12



hours to 5 days, only the numerical weather forecast is used because the prediction accuracy of precipitation nowcast decreases.

Riken website:

https://www.riken.jp/en/news_pubs/news/2020/20200820_2/index.html

(in English)

https://www.riken.jp/press/2020/20200820_2/index.html (in Japanese)

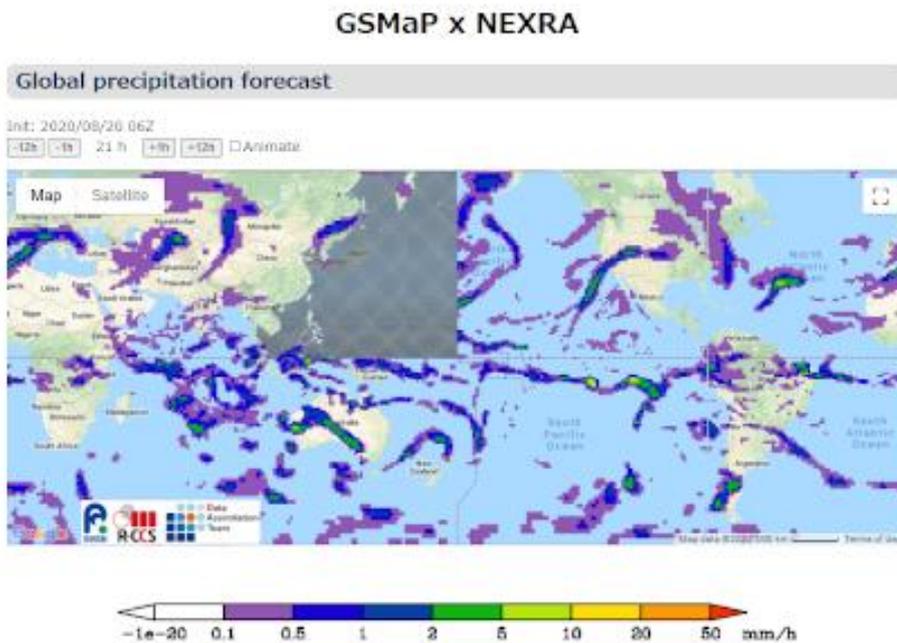


Image of rainfall forecast from Riken website

Additional Topics

2025 Osaka Expo logo decided

On August 25, the "Japan International Expo Association", the operator of the 2025 International Expo (Osaka/Kansai Expo), announced that it has decided the official logo mark. Designed by connecting red spheres with a focus on "cells" under the theme of "the brilliance of life". "I expressed the DNA of the 1970 World Expo in Osaka," explained the selected creator, Mr. Shimada.

The association publicly solicited the logo mark from November to December 2019. By the beginning of August, the selection committee chaired by architect Mr. Tadao Ando had selected and published 5 out of 5894 works. The selection committee made the final decision based on the opinions collected from the

general public on the internet. It was scheduled to be announced this spring, but postponed due to the influence of COVID-19.

Regarding the official emblem of the 2020 Tokyo Olympics and Paralympics, it was pointed out that the emblem created by the designer was similar to the Belgian theater logo, and there was a history of withdrawing and reselecting. The association commissions a lawyer's office to investigate the copyright and trademark registration of five works selected by the selection committee in 186 countries including Japan. It was confirmed that there was no design similar to the 5 works.

The Osaka/Kansai Expo will be held from April 13 to October 13, 2025 at the artificial island, Yumeshima (Konohana-ku, Osaka) in Osaka, under the theme of "Designing Future Society for Our Lives". The organizer expect approximately 28 million visitors from 150 countries, and the economic ripple effect is assumed to be ¥ 2 trillion.

The adopted logo has a unique presence among the final five works, and there are many voices on the website that the logo design is creepy, such as "unpleasant" or "scary". On the other hand, opinions such as "cute" and "like a crazy caramel corn" were seen.

EXPO 2025 Website: <https://www.expo2025.or.jp/en/overview/>



Logo from website EXPO 2025



Image of venue from website EXPO 2025

Government dispatched the third aid team to the Mauritius oil spill accident

The Ministry of Foreign Affairs announced on September 1 that it will dispatch an international emergency relief team and expert team consisting of a total of 6 people in response to an oil spill on the coast of Mauritius at the request of the government of the country. The team will support the detailed investigation of mangroves, coral communities, wildlife, seawater quality and bottom quality.

In this accident, a bulk carrier "WAKASHIO" operated by MOL (Minato-ku, Tokyo) chartered from a subsidiary of NAGASHIKI SHIPPING (Kasaoka City, Okayama Prefecture) was off the coast of Mauritius on July 25, and fuel oil spilled on August 6. This has a tremendous effect on the on-site waters and areas. The hull was divided into two on August 15. The front part of the hull has been settled in the Mauritius waters on August 24, and the rear part is being considered by local authorities and a team of shipowners for a removal plan.



WAKASHIO that caused a grounding and oil spill accident from MOL website



Mangrove survey from MOFA website

In the short term, MOL provides materials and support supplies useful for oil leakage collection and removal work, but they are looking for and implementing a method that can contribute to the recovery of the ecosystem and local communities from a long-term perspective, seeking widespread help from experts who have knowledge of the natural environment and its protection activities.

In order to promote this, they established the "the Mauritius Environmental and Social Contribution Team" in the head office, and the Mauritius representative office will be established in October.

Mauritius, an island nation of the Indian Ocean, is a treasure trove of biodiversity such as coral reefs, and thanks to its bounty, fisheries and tourism are established. Regarding this accident, the Ministry of the Environment of Japan expressed that "It is a serious crisis that will lead to the loss of biodiversity, and it will be a blow to Mauritius in addition to COVID-19. The government of Japan will support the country as much as possible".

MOL website: <https://www.mol.co.jp/en/sustainability/incident/index.html>

Japan is popular destination from overseas after COVID-19

The number of foreign tourists has continued to fall on record due to the influence of COVID-19 all over the world, but the most popular destination to travel after COVID is Japan by the questioner to Asian countries. According to the responses from Europe, the US and Australia, the US was the top and the second was Japan. This questioner survey was conducted this June by the Development Bank of Japan, a government-affiliated financial institution, through the internet with the Japan Travel Bureau Foundation. The survey was answered by more than 6,200 people living in 12 countries and regions such as the United States, France, China, and South Korea.

When the organizer asked multiple countries and regions who would like to travel after COVID-19, Japan was the top with 56% in the eight Asian countries, second was Taiwan 30%, and third was Thailand 23%. On the other hand, in the four countries of the United States, Australia, United Kingdom and France, the United States was 28%, Japan was 24%, Canada was 20%, Japan was second.

When asked what is attractive about Japan, 47% of respondents answered "There are tourist spots and facilities to visit", the second was "The food is delicious" at 43%, and the third was "I have traveled before and I like it" at 37%. The fourth was "because it's clean" at 36%, which is Japan's first place over Singapore and New Zealand among more than 30 travel destinations.

The Development Bank of Japan, which conducted the survey, told the media that "In order to understand the needs of travel to Japan, we must thoroughly implement infection control measures and take advantage of Japan's strength

of cleanliness. It is important to disseminate information in multiple languages, too.”

About the areas where respondents would like to visit, Tokyo had the highest percentage at 47%, followed by Hokkaido at 42%, Kansai at 37% and Yokohama and Hakone near Tokyo at 30%.

JTB Website:

<https://www.jtb.or.jp/wp-content/uploads/2020/08/DBJ-JTBF-euroasia-report-2020.pdf> (in Japanese)



(Free picture)

Distilled 80,000 cups of excess beer to regenerate into gin

Ethical spirits & Co., a small-sized Sake brewer who aims to realize a recycling-oriented society through ethical production (Tokyo) distilled a special gin "REVIVE" by about 80,000 cups of beer (250 ml per cup) which was surplus due to the spread of COVID-19, in collaboration with Anheuser-Busch InBev Japan ("Budweiser" brand) and a Japanese Sake maker Gekkeikan (Kyoto Prefecture). It was announced on July 28 and the product is sold in limited quantities from September.

Along with the spread of COVID-19, the food service industry and the beer market were affected, and the beer sales volume in April dropped by about 52.1% year-on-year (the average sales volume of four major beer companies). Ethical Spirits provided the technology for distilling beer into gin to Gekkeikan and Gekkeikan distilled the beer that was provided by Budweiser, and completed the "REVIVE".

Advance reservations will be accepted from the official online shop of Ethical Spirits from August 1. A part of the sales is planned to be donated through the live entertainment support fund "Music Cross Aid" to support the entertainment industry which is facing a crisis due to the impact of COVID-19.

Ethical Spirits aims to contribute to the SDGs by producing and selling spirits from Sake lees that are from the process of producing Sake from rice, although they are emerging small-sized liquor makers.

Ethical spirits & Co. website: <https://shop.ethicalspirits.jp/> (in Japanese)



The Nippon Foundation is setting up the designer's toilets in Tokyo

The Nippon Foundation announced Aug. 3 that they are launching THE TOKYO TOILET project to build public toilets that can be used by anyone. The project will build new toilets at 17 locations in Shibuya, Tokyo, as a way of moving toward the realization of a society that embraces diversity. Three of the toilets was made available for use by the general public from August 5.

These public toilets are being designed by 16 leading creators, and will use advanced design to make them accessible for everyone regardless of gender, age, or disability, to demonstrate the possibilities of an inclusive society.

Japan is known as one of the cleanest countries in the world. Even public toilets have a higher standard of hygiene than in much of the rest of the world. However, the use of public toilets in Japan is limited because of stereotypes that they are dark, dirty, smelly, and scary.

Anyway, there are two concerns with public toilets, especially those located in parks. The first is whether it is clean inside, and the second is that no one is secretly waiting inside. Using a new technology, they made the outer walls with glass that becomes opaque when the lock is closed, so that a person can check inside before entering. At night, they light up the parks like a beautiful lantern.

Nippon Foundation website: <https://www.nippon-foundation.or.jp/en/news/articles/2020/20200805-47312.html>



The toilet in Haru-no-Ogawa Community Park



The glass of the outer walls becomes opaque when the lock is closed

Warner Bros. Studio Tour Tokyo, The Making of Harry Potter Set to open in the first half of 2023

Warner Bros. Studio Tours, operator of “The Making of Harry Potter” in London; Warner Bros. Japan, Seibu Railway Co., Ltd. , ITOCHU Corporation and Fuyo General Lease Co., Ltd. announced on Aug. 18 that the parties have executed an agreement with regard to the development of “Warner Bros. Studio Tour Tokyo – The Making of Harry Potter (hereinafter “Studio Tour Tokyo”) on a part of the current Toshimaen Amusement Park grounds located in Nerima-Ku, Tokyo.

The Tokyo Metropolitan Government plans to develop a public park on a plot which includes the current grounds of Toshimaen Amusement Park which is scheduled to close at the end of August this year. The development will be conducted in a phased manner. The Studio Tour Tokyo facilities will be developed in conjunction with the development of this park. The involved parties will continue to work in cooperation with Tokyo’s park plans in furthering the

development of the Studio Tour Tokyo facilities.

Lined with carefully maintained trees and surrounded by lush greenery, the area has a long history of being loved by many. Added to that, the easy access from the center of Tokyo makes the area an attractive location, the ideal setting for the Tour. The partners will create facilities suitable for this to become a popular new destination.

The Studio Tour Tokyo will be the second facility of its kind in the world, after London, and will offer a new type of experiential entertainment in Japan. Building on the success of the Harry Potter experience in London which has claimed unparalleled popularity and recognition, the indoor attraction will take visitors on a fascinating behind the scenes tour of the Wizarding World series.

The facility covers an area of about 30,000 square meters, and the exhibition space within the “sound stage” and “backlot” (outdoor filming area) zones will take approximately half a day to walk through. The parties plan to work in cooperation with each other to proceed with the construction of the Studio Tokyo Tour, which is set to open in the first half of 2023.

Itochu Corporation website:

<https://www.itochu.co.jp/en/news/press/2020/200818.html>



Image of Warner Bros. Studio Tours Tokyo – The Making of Harry Potter from Itochu Corporation website