EU-Japan Centre for Industrial Cooperation
日欧産業協力センター

JAPANESE INDUSTRY AND POLICY NEWS
January 2021

Legislation and Policy News

- **Services launched for system for filing requests for subsidies called "jGrants 2.0"**
- **Demonstration tests to be held for food waste reduction taking advantage of electronic tags (RFID)**
- **"Echizen Gani" and "Iburigakko" are targets of Geographical Indication, first added in Japan-EU EPA**

Survey and Business Data

- **Carbon neutral in 2050, 43% of companies are "difficult to achieve"**
- **Trade balance in 2020, secure surplus for the first time in 3 years**
- **400,000 people moving out of Tokyo, up 4.7% to 2019**

Company & Organization News

- **Sony unveils driving test of EV under development on public road**
- **MIRAI, plant factory equipment sales contract with Norwegian company completely closed**
- **92 corporations calling on the Japanese government to raise its 2030 renewable energy target to 40-50%**
- **Commercialized the world's first supplement of green bio product containing the biotics ingredient HYA**
- **Face recognition and palm vein authentication enable highly accurate identification of people even when wearing a mask**
- **Shell, Mitsubishi Heavy Industries, Vattenfall and Wärme Hamburg sign letter of intent for 100MW hydrogen project in Hamburg**
- **Toyota is the number one seller in the world for the first time in 5 years**

Other Topics

- **Wear non-woven mask when meeting people, performance difference in material and shape**

Legislation and Policy News

Services launched for system for filing requests for subsidies called "jGrants 2.0"

On January 4, the Ministry of Economy, Trade and Industry (METI) started offering "jGrants 2.0", which is an improved function of the general-purpose subsidy application system "jGrants" that can complete the procedure from open recruitment to post-project completion online.

jGrants is an electronic subsidy application system that allows you to complete procedures 24 hours a day, 365 days a year. The applicants can search for the desired subsidy from the keywords, and after applying, they can check the status from My Page to the grant. In addition, it is expected that it will be possible to utilize it in various subsidy systems by improving the function, and it will contribute to the improvement of convenience in the electronic application of the business operator under the COVID-19.

In the initial budget for 2021, the METI subsidy is preparing to introduce it for use in more than 100 projects. In addition, with the cooperation of the Cabinet Secretariat and the Ministry of Internal Affairs and Communications, it will be used not only as a subsidy from the METI, but also as a subsidy for each ministry and local government. As soon as each subsidy is ready for public offering, the name of the subsidy will be posted on the "Subsidy List" on jGrants.

When using J Grants, it is necessary for the business operator to obtain a "G Biz ID", which is an authentication system that allows users to access multiple administrative services with one account. The G Biz ID can be used not only for subsidy applications, but also for corporate social insurance procedures and support procedures for various small and medium-sized enterprises, and the government plan to expand the available procedures in the future. Since it takes about 1 to 2 weeks to obtain a G Biz ID, the METI calls for the early acquisition of a G Biz ID before the start of the open call for participants.

METI website: Services Launched for System for Filing Requests for Subsidies Called "jGrants 2.0" (meti.go.jp)

Front page of jGrants (only in Japanese)

Demonstration tests to be held for food waste reduction taking advantage of electronic tags (RFID)

The Ministry of Economy, Trade and Industry (METI) announced on January 21, they conduct demonstration tests for food waste reduction taking advantage of electronic tags equipped with radio-frequency identification (RFID) technology in online supermarkets and consumer households.

The distribution industry has been facing the advancement of serious labor shortages caused by the aging of society with fewer children being born, soaring labor costs in accordance with such shortages and diverse consumer demand. In addition, as the industry embraces many businesses in its supply chains of consumer goods, this situation is considered to make overall optimization of the industry difficult, resulting in food waste and returned goods.

In this project, METI will conduct demonstration tests in which participating businesses and producers will: affix RFID tags to fresh food in production areas, secure traceability of the food in supply chains after shipment thereof (i.e., secure the situations which make the distribution history of such food traceable), make visible the level of the freshness of the food by using temperature and humidity data logger and sell the food at prices varying with the information on the level of freshness.

Moreover, METI will also conduct demonstration tests in which it will collaborate with a smartphone application and encourage consumers to manage their

household inventory of food that they have bought. Through these tests, METI will endeavor to enhance the efficiency of supply chains and improve productivity thereof, e.g., making information on supply chains visible, reducing food waste and providing value added products.

(Summary of the demonstration tests)
Period of the tests
From January 20 (Wed.) to February 9 (Tue.), 2021
Business to which METI commissioned the tests (operator)
Japan Research Institute, Limited
Cooperating companies
ITOCHU Interactive Corporation, Ito-Yokado Co., Ltd., Toppan Printing Co., Ltd., Mitsui Chemicals, Inc., large system integrator, and about 20 production areas across Japan
Target products
About 3,000 items (to which RFID tags are affixed) from about 60 types of fresh food, e.g., fruits, vegetables, meat and fish, and other daily food

METI website: https://www.meti.go.jp/english/press/2021/0120_003.html

Store image of cooperating company, Ito Yokado
(from their website)

"Echizen Gani" and "Iburigakko" are targets of Geographical Indication, first added in Japan-EU EPA

On January 26, the government of Japan announced it will add a total of 28 agricultural and marine products, and alcoholic beverages, such as "Echizen Gani" and Akita's specialty pickle "Iburigakko" made from Iburi radish, as subjects to "Geographical Indications (GI)" that protect brands in specific production areas, in the scheme of EPA with the EU, which came into effect in February 2019. On the other hand, 28 items such as French liqueur "Cassis de Dijon" and Greek "Kalamata" olive oil have been added to the EU's GI target. Both will take effect on February 1. These are the first additional registration of GI in Japan-EU EPA.

As of January 2021, the total number of GIs protected by the agreement was 56 on the Japanese side and 210 on the EU side. Among the items on the Japanese side, Yubari Melon, Oita Kabosu, Hatcho Miso, etc. were included, and 8 items of alcoholic beverages were targeted. Among the EU items, dairy products were the most popular agricultural products with 25 items, including famous cheeses such as Camembert de Normandy (France), Queso Manchego (Spain), and Gorgonzola (Italy). In addition, 210 items of alcoholic beverages such as wine were targeted.

Under the Geographical Indication Protection System (GI), the target is registered separately for alcoholic beverages and agricultural products, both of which protect the names of products with characteristics linked to the region and are protected as a property shared by the region. On the other hand, the regional collective trademark system protects the names that are applied to all goods and services are well known as those used by regional organizations, and are protected as the property (rights) of regional organizations. The former will be protected in the country where reciprocity is realized with the country that has the system. On the other hand, the latter requires individual trademark registration overseas.

JETRO website: https://www.jetro.go.jp/biznews/2021/02/fce1ff33bd12afd9.html

Echizengani-crab from Echizen town tourism federation website

Survey and Business Data

Carbon neutral in 2050, 43% of companies are "difficult to achieve"
Teikoku Databank, a private research institute, announced on January 19 the results of a survey of companies' attitudes toward controlling greenhouse gas emissions. According to this survey, 15.8% of companies think that the government's "2050 carbon neutral" target is "achievable" in Japan as a whole, while 43.4% think it is "difficult to achieve" and 17.9 % thinks they can't achieve it. The survey period was from December 16, 2020 to January 5, 2021, and the survey target was 23,688 companies nationwide. The number of valid responding companies was 11,479 (response rate 48.5%).

While many companies are working to curb greenhouse gas emissions, more than half of them are strict about the government's 2050 target, according to the survey report. Further efforts are needed to curb it. In order to encourage companies to take action and create a "virtuous cycle of environment and economy," the government has to clarify more detailed action goals and concrete methods. The Teikoku databank point out that strengthening information dissemination to SMEs in particular is the key.

According to this survey, 82.6% of companies are working to reduce greenhouse gas emissions. By size, large companies accounted for 88.8%, SMEs 81.3%, and micro companies 76.1%, showing a difference depending on

the size of the company. By industry, "manufacturing" (87.1%) was the top, and even the lowest "service" was 78.6%.

In addition, when asked about what they are actually working on, "energy saving" by saving electricity and water was the top with 43.0% (multiple answers, same below). This was followed by "Implementation of Cool Biz (including Warm Biz)" (42.6%), "Introduction of hybrid vehicles and electric vehicles" (28.0%), and "Reduction of waste" (22.2%). Looking at the items that the government has announced and is focusing on, such as "development of environmentally friendly products and services" was only 10.9%. And "introduction and switching of clean energy" by solar power and wind power generation was also only 10.6%.

When asked about the purpose of companies working to reduce greenhouse gas emissions, "cost reduction" such as electricity charges was the top with 55.7%. Furthermore, "legal compliance" continued at 48.9%. Large companies account for a high percentage of items related to how they are evaluated as a company, such as "a part of CSR" and "correspondence to SDGs".

Website of Teikoku Databank:
https://www.tdb.co.jp/report/watching/press/s210103_28.html (in Japanese)

Concrete efforts of companies to curb greenhouse gas emissions

	Items(Multiple answer allowed)	%
1	Energy saving	43.0
2	Cool Biz (Warm Biz)	42.6
3	Introduction of HV and EV	28.0
4	Waste control	22.2
5	Selection and introduction of environmentally friendly equipment and raw materials	18.5
6	3R (Reduce, Reuse, Recycle)	15.2
7	Unnecessary equipment and system outage	12.9
8	Development of environmentally friendly products and services	10.9
9	Introduction of clean energy	10.6
10	Strengthening insulation	8.6
11	Contribution to nature maintenance activities	5.4
12	Decrease in commuting due to telework	4.7
13	Review of logistics	2.9
14	Greenhouse gas offset	1.7
15	Participation in the emissions trading market	0.3
16	Others	1.1

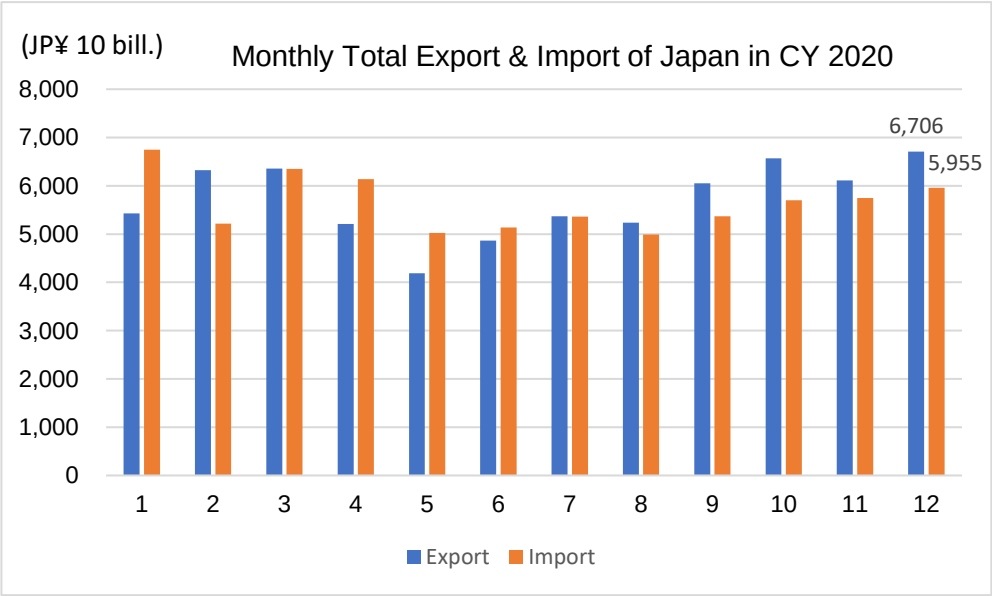
No. of answers: 11,479 companies/ Data: Teikoku Databank

Trade balance in 2020, secure surplus for the first time in 3 years

According to the 2020 Trade Statistics Bulletin (customs clearance basis) released by the Ministry of Finance on January 21, the trade balance, which is obtained by subtracting the import value from the export value, secured a surplus of JP¥ 674.7 billion. The annual trade surplus is the first in three years. Trade stagnates occurred due to the impact of the spread of the COVID-19 worldwide. Due to sluggish sales of vehicles to Europe and the United States, the export value decreased 11.1% from the previous year to JP¥ 68,406.7 billion, it was the second consecutive year of decline.

The rate of decrease in export value has been the largest since 2009 (down 33.1%). By region, the United States was down 17.3% and the EU was down 14.6%, a significant decrease. Sales to China, where the economy quickly recovered from the COVID-19 wreck, increased 2.7% to JP¥ 15,082.9 billion, turning positive for the first time in two years and it was the second highest level since 1979. By item, vehicles decreased by 20.0%, and auto parts and light oil were also sluggish. In 2020, the value of imports decreased by 13.8% to JP¥ 67,732 billion due to the decrease in energy-related products including crude oil.

MOF website: https://www.customs.go.jp/toukei/shinbun/trade-st_e/2020/2020_115e.pdf



- Exports & Imports with EU (CY 2020)

	Value (Billions of JP¥)	% to CY 2019	Reference
Exports	6,461.8	-14.6	Decreased 2 years continuously
Imports	7,788.8	-12.6	Decreased for the first time in 4 years
Balance	-1,327.0	-1.5	In red 9 years continuously

- Movement of principal goods with EU (CY 2020)

Export goods	% to CY 2019	Import goods	% to CY 2019
Vehicles	-27.1	Vehicles	-22.7
Auto parts	-18.4	Aircrafts	-63.1
Motors	-31.4	Bags	-21.7

Data: MOF

400,000 people moving out of Tokyo, up 4.7% to 2019

According to the population migration report of the Basic Resident Register released by the Ministry of Internal Affairs and Communications on January 29, the total number of out-migrants indicating those who are leaving Tokyo was 401,805, an increase of 4.7% from the previous year. It became the largest since 2014. The concentration in Tokyo has continued, but the trend has changed due to the COVID-19, such as an increase in the number of people who are interested in teleworking in rural areas.

Looking at the situation in Tokyo last year, in May after the COVID-19 spread, the number of out-migrants exceeded the number of in-migrants for the first time since July 2013. Although it returned to normal in June, more people moved out from July to December. In the year, the number of out-migrants, which had been around 380,000 for the past few years, exceeded 400,000, while the number of in-migrants to Tokyo decreased by 7.3% to 432,930. The number of transferees was as low as in 2014. The number of over-migrants, which is the number of in-migrants minus out-migrants, was 31,125, a significant decrease of 62% compared to 2019.

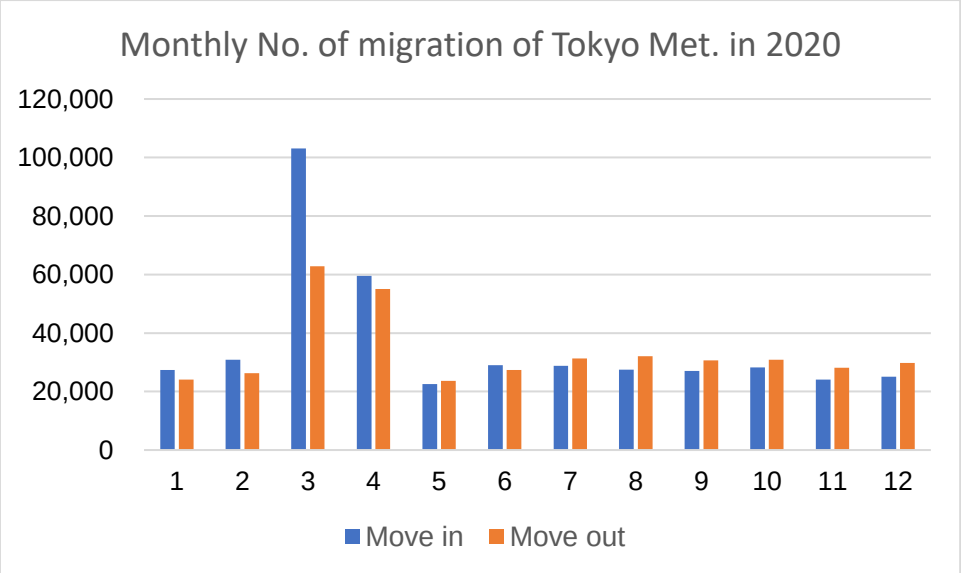
Neighboring prefectures are accepting people leaving Tokyo. In Kanagawa, the number of over-migrants was 29,574, which is the second highest after Tokyo,

and in Chiba, it was 14,273, an increase of about 50% from 2019. In the three prefectures of Kita-Kantou, Nagano, and Yamanashi, where there were many out-migrants, the number of over-migrants decreased by more than half from 2019. The background is that the number of people who want to move to rural areas is increasing due to the COVID-19. Many people went to work less frequently due to the spread of telework to prevent the infection.

On the other hand, it has been pointed out that "It is not always positive migration." Some people are thinking of moving to a rural area where rent and living expenses are low because they can no longer live in Tokyo due to unemployment or reduced income by the COVID-19.

The government is taking the opportunity of the COVID-19 wreck to correct the overconcentration in Tokyo. In FY 2021, the government will provide a subsidy to those who have moved to rural areas while continuing to work in Tokyo. Local governments will also establish new grants to improve the teleworking environment for residents. Whether the trend of easing the overconcentration in Tokyo continues or not depends on changes in working styles, such as teleworking and local migration.

Statistics Bureau of Japan website:
https://www.stat.go.jp/english/data/idou/3.html



Data: Statistics Bureau of Japan

Company & Organization News

Sony unveils driving test of EV under development on public road

On January 12, Sony unveiled for the first time a driving test of EV, VISION-S under development on public roads. The results of research and development were announced at the technology trade fair "CES = Consumer Electronics Show" of the US held online, and driving experiments on public roads in Austria can also be seen on the Sony website.

Forty sensors are attached to this EV to assist the autonomous driving while reading the road conditions and the facial expressions of the driver. Sony's EV development aims to expand the use of sensor technology, and it is unknown whether it will be sold in the future. However, they will also experiment on public roads in Japan and the US sooner or later, aiming for fully autonomous driving in which the system performs all operations.

Regarding the development of EVs, IT companies such as Baidu, Apple, and Amazon are embarking on development one after another, and Sony's trends are also attracting attention. Unlike gasoline-powered vehicles which are composed of 30,000 to 50,000 parts, EVs are able to be made with half the parts centered on batteries and motors. The market is expected to expand due to decarbonization, and there is a high possibility that well-funded IT companies will enter the automotive industry by outsourcing production. There is also a view that emerging powers will destroy the order of the existing automotive industry, which is composed of TIERs.

Sony website: https://www.sony.net/SonyInfo/vision-s/

Sony VISION-S from Sony website

MIRAI, plant factory equipment sales contract with Norwegian company completely closed

MIRAI (Kashiwa City, Chiba Prefecture) announced on January 12 that it has signed an equipment sales contract with ONNA Greens AS in Norway regarding the cultivation equipment of a completely closed artificial light type plant factory. The plant is planned to be built in the suburbs of Oslo, Norway, to produce 560 kg / day of herbs and lettuce (converted to leaf lettuce). The production period is scheduled to be from December 2021 to January 2022.

Under this contract, MIRAI will be responsible for equipment sales, factory operation support and cultivation technical support through a monitoring system. The two companies started considering this contract about three and a half years ago. In Norway, the open-field production was not in a system to supply all year round in response to the increase in demand for salads, and imports were heavily weighted. They have been working on the theme of overcoming this situation with the production of vegetables in an artificial light type plant factory.

ONNA selected MIRAI as a producer to work on cultivation, factory management, sales, and product development in a comprehensive manner while holding business talks with equipment manufacturers and producers in each country. It has been gradually considering the design and operation

system for about a year and a half. This project is planned for the second phase in 2022, with this as the first phase. In addition, MIRAI intends to strengthen its partnership and work together on the business development of ONNA as a producer in other Scandinavian countries.

With the cooperation of its parent company Masaru Kogyo, MIRAI remodeled the existing equipment at its own factory, Kashiwanoha Factory, from August 2019. It has succeeded in mass production from December 2020 for leaf cultivation of 200 g or more per plant and 250 g or more depending on the item. Currently, it is mainly sold for salads. Under this contract with ONNA, they will export to Norway in 2021 with equivalent cultivation equipment specifications, install and assemble it locally. They aim to start production by the end of the year.

MIRAI expects that manufacturing cost reduction activities are indispensable in Scandinavia, where labor costs are high, and that the results linked to product development will be great. In the future, the company plans to work with ONNA to develop products required by the market in Norway, Sweden, Finland, Denmark, and Iceland.

Mirai website: https://miraigroup.jp/information/
(in Japanese)

Mirai plant from Kashiwa municipal office website

92 corporations calling on the Japanese government to raise its 2030 renewable energy target to 40-50%

Japan Climate Initiative (JCI) announced on January 18, total of 92 Japan JCI member corporations who support either RE100, SBT, CDP, TCFD released a message calling on the Japanese government to raise its renewable energy share to 40-50% in its 2030 electricity mix. To this message, Ricoh, Panasonic, Kirin Holdings, Seven & i Holdings, Nissan Motor, Kao, etc. participated.

To meet the goal of being carbon neutral by 2050, EU countries and U.S. states have already set progressive goals to be reached by 2030, in the range of 40-74% in the electricity mix. In contrast, Japan's current renewable energy target for 2030 is only 22-24%.

This message calling on the Japanese government to raise its 2030 renewable energy target was endorsed by leading Japanese corporations in a wide range of fields, including the electrical, IT, automotive, aviation, shipping, retail, food, housing & construction, pharmaceutical, steel, chemical, glass, insurance & finance sectors. These signatories are demonstrating their clear intent to play "a greater role in the global business environment, where decarbonization is accelerating, and enable Japanese companies more committed to the challenge of mitigating the climate crisis."

The Climate Change Initiative (JCI) established by 105 companies & organizations in July 2018 as a soft network to strengthen information dissemination and exchange of opinions among companies, local governments, NGOs, etc. that are actively working on climate change countermeasures in Japan. As of January 19, 2021, the number of participating organizations has increased more than 540. The secretariat is WWF Japan, CDP Japan and the Renewable Energy Institute.

JCI website: https://japanclimate.org/english/news-topics/re2030increment/

2030 renewable energy target (2019 actual)	
Spain	74% (37%)
Germany	65% (42%)
Italy	55% (35%)
France	40% (20%)
EU	57% (35%)
State of California	60% (53%)
State of New York	70% (29%)
Japan	22～24% (18%)

Table from JCI website

Commercialized the world's first supplement of green bio product containing the biotics ingredient HYA

The New Energy and Industrial Technology Development Organization (NEDO) announced on January 19 that it has discovered and successfully mass-produced functional fatty acids that are expected to suppress the rise in postprandial blood glucose levels.

In 2013, in NEDO's "Innovation Practical Venture Support Project", Nitto Pharmaceutical Industries Ltd.(Nitto) discovered the functional fatty acid HYA® produced by the metabolism of linoleic acid derived from vegetable oil by intestinal bacteria. They found that this has the effect of suppressing the rise in postprandial blood glucose level, and established a mass production method for it. After that, Nitto affiliated company, Noster Co., Ltd., commercialized the supplement containing HYA® for the first time in the world, and started selling it as "HYA®-50" at the end of 2020.

About 50% of Japanese deaths are caused by lifestyle-related diseases such as diabetes and heart disease, and obesity is one of the causes. In fact, the world's obese population, which targets people with a BMI 130 or higher, is said to be 712 million, and even in Japan, the number of people with a BMI of 25 or higher exceeds 30 million, which is a very big social issue. However, the reality is that no complete cure for obesity has been established.

Aiming to solve this problem, Nitto conducted joint research with Kyoto

University to elucidate the metabolic pathways of dietary lipids and fatty acids by intestinal bacteria, and clarified functionality. After that, the company carried out research and development for the practical use of novel functional fatty acids produced by the lipid metabolism of intestinal bacteria, and discovered HYA® (10-hydroxy-cis-12-octadecenoic acid), which is one of the intestinal bacterial lipid metabolites. It was found to have the effect of suppressing the rise in postprandial blood glucose level.

* Noster Co., Ltd. is the world's first successful production of lipid metabolites for food products by intestinal bacteria, 10-hydroxy-cis-12-octadecenoic acid. Nitto Pharmaceutical Industries Ltd. registered the trademark in 2014 (currently, Noster Co., Ltd. is the trademark owner).
"HYA®-50" is not produced by a chemical synthesis method, but by reacting lactic acid bacteria with naturally occurring vegetable oil. Therefore, the environmental load during production can be reduced, and as a green bio product, it also contributes to the achievement of the SDGs.

NOSTER website: https://www.noster.inc/science/hya/

Supplement HYA-50 from NEDO website

Face recognition and palm vein authentication enable highly accurate identification of people even when wearing a mask

Fujitsu Laboratories Ltd. announced on January 21 that it has developed a non-contact multi-biometric authentication that identifies a person by combining face information and palm veins. Even if a mask is worn, it is possible to identify the person with a high accuracy of 99% or more, which is the same level as without wearing a mask.

In multi-biometric authentication, by acquiring face information with a camera, the collation target person is narrowed down from the registered face information, and the target person is further narrowed down by the palm vein to identify the person. By incorporating the mask wearing authentication technology developed this time, they are aiming for practical use by the end of 2021 assuming the use of empty-handed authentication such as "stores without cash registers".

The developed technology adds a pseudo-generated mask image (pseudo-mask) to a face image without a mask, and expands the data for learning. Specifically, first, facial feature points such as the positions of eyes and nose are detected, the orientation of the face is estimated, and then the size of the pseudo mask is adjusted and superimposed on the face image. As a result, a natural face image that imitates wearing a mask is obtained, and high authentication accuracy is realized. In the face recognition vendor test by the National Institute of Standards and Standards of the US (NIST), the method imitating a face photograph wearing a mask achieved the highest accuracy among domestic vendors.

In addition, the palm vein recognition sensor has also been improved this time. A palm-shaped light is provided around the sensor, and the color and light emission pattern of the light are changed according to the height at which the palm is held so that the user can easily know the appropriate height for authentication.

Fujitsu Laboratories website:
https://www.fujitsu.com/global/about/resources/news/press-releases/2021/0121-01.html

Image from Fujitsu Laboratories website

Shell, Mitsubishi Heavy Industries, Vattenfall and Wärme Hamburg sign letter of intent for 100MW hydrogen project in Hamburg

The companies Shell, Mitsubishi Heavy Industries (MHI), Vattenfall and municipal company Wärme Hamburg are planning how they can jointly produce hydrogen from wind and solar power at the Hamburg-Moorburg power plant site and utilize it in its vicinity. To this end, the four companies have signed a letter of intent, MHI announced on January 22.

In addition to the construction of a scalable electrolyser with an initial output of 100 megawatts, the further development of the site into a so-called "Green Energy Hub" is planned. This includes the exploration of the extent to which the existing infrastructure of the Moorburg location can be used for the production of energy from renewable sources. In this context, concepts for the necessary logistics chains and storage options for hydrogen will also be considered. Subject to final investment decision and according to the current state of planning, once the site has been cleared, the production of green hydrogen is anticipated in the course of 2025 - making the electrolyser one of the largest plants in Europe.

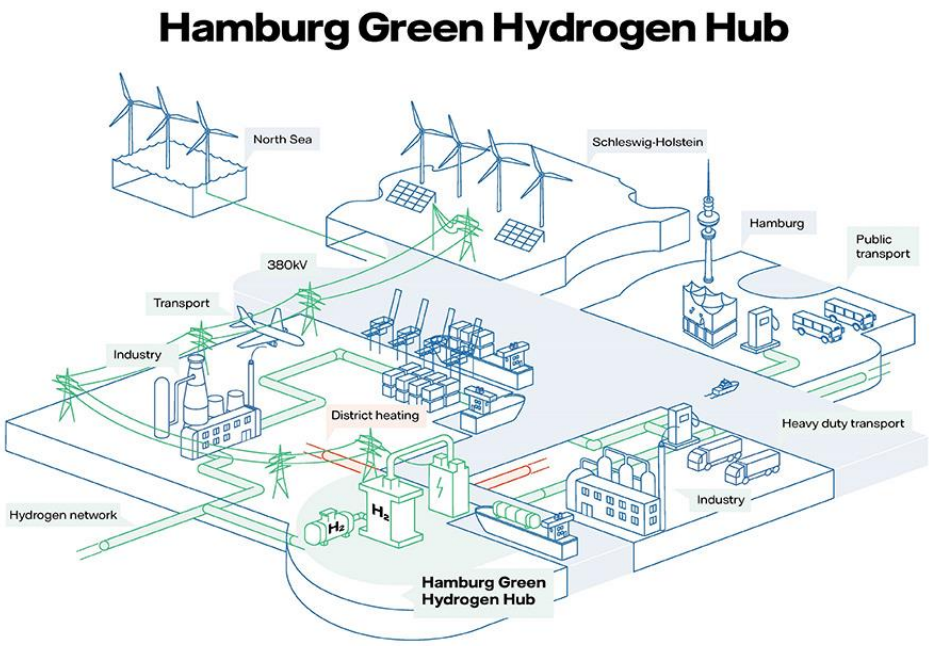
The partners intend to apply for funding under the EU program "Important Projects of Common European Interest" (IPCEI). This should take place in the

first quarter of 2021 with the submission of a first outline of the project. The four partner companies view the energy location as having ideal conditions for further use. It is connected to both the national 380,000 volt transmission network and the 110,000 volt network of the City of Hamburg. In addition, overseas ships can call at the location directly and use the quay and port facilities as an import terminal.

The municipal gas network company also intends to expand a hydrogen network in the port within ten years and is already working on the necessary distribution infrastructure. Numerous potential customers for green hydrogen are located near the site, thus enabling the project to cover the entire hydrogen value chain - from generation to storage, transport and utilization in various sectors. With these prerequisites, the Moorburg location is optimal for the German federal state of the Free and Hanseatic City of Hamburg and Northern Germany and can become a potential starting point for the development of a hydrogen economy.

For many years, Moorburg was the site of a gas-fired power plant operated by Hamburgische Electricitäts-Werke, and Vattenfall had been operating a coal-fired power plant here since 2015. Its commercial operation was terminated after the power plant won a bid in the auction for the nationwide coal phase-out in December 2020. A decision by the transmission system operator on the system relevance of the plant is expected in March 2021. The City of Hamburg and Vattenfall are striving to clear partial areas of the site as soon as possible for the project to produce green hydrogen and the development of a Green Energy Hub.

MHI website: https://www.mhi.com/news/210122.html



From MHI website

Toyota is the number one seller in the world for the first time in 5 years
Toyota Motor Corporation announced on January 28 that global sales in 2020 (including Daihatsu Motors and Hino Motors) were 9.52 million units, down 11.3% from the previous year. Sales in China were strong, and the rate of decline was suppressed. According to information from a private research company, it is certain that it will surpass the German Volkswagen (VW) Group, which has fallen sharply in Europe, and the three-company alliance of Nissan Motor, France Renault, and Mitsubishi Motors. Toyota will return to the top position for the first time in five years.

Global sales of vehicles were sluggish due to the spread of the COVID-19, but it turned positive after October. The impact was minimized by launching new cars. China was the driving force behind sales. Annual sales of Toyota alone increased by 10.9% from the previous year to 1.79 million units. In rural areas, measures to attract customers such as motor shows were strengthened, and luxury cars "Lexus" and Corolla performed well. Since April, the pace has been higher than the previous year.

The domestic market was 1.5 million units, down 6.6%. New models such as

the sports utility vehicle (SUV) "Harrier" and the compact car "Yaris" performed well. Toyota handled different car models for each dealership, but from May, they change a mechanism to sell all car models at all dealers and it was a factor to suppress the decrease.The European market was down 8.5% to 960,000 units, and the US market was down 11.3% to 2.11 million units.

On the other hand, VW Group's sales decreased by 15.2% to 9.3 million units. It was the number one in the world for four consecutive years until 2019, but the decline in major markets such as China and Europe. The Chinese market is down 9.1% to 3.84 million units, and Western Europe such as Germany and France is down 21.6% to 2.93 million units. Sales in Europe, the United States and Japan of the three-company alliance including Nissan, which was third in 2019, are expected to drop by about 20% from the previous year to less than 8 million units in 2020. The sales volume of all three groups in 2019 exceeded 10 million units.

Toyota website:
https://global.toyota/en/company/profile/production-sales-figures/202012.html

Toyota FCV MIRAI from Toyota website

Other Topics

Wear non-woven mask when meeting people, performance difference in material and shape

While the spread of COVID-19 infection did not subside, masks became an indispensable item in daily life, but the effect of each mask material simulated by the National Institute of Physical and Chemical Research (RIKEN) using the supercomputer "Fugaku" at the end of last year, has been in the spotlight again now. Many people dislike non-woven masks because of suffocation, so more and more people are using urethane or cloth masks, but non-woven masks seem to be more effective in preventing splashes.

In order to prevent infection, RIKEN's research team is proposing the proper use of masks in consideration of the risks associated with behavior, such as using non-woven masks when gathering with people. The research team first experimentally measured the filter performance and breathability of each material itself. Based on the data, a simulation was performed at “Fugaku” to reproduce the shape of the mask and the state worn by a person.

As a result, it was found that the non-woven fabric mask has higher performance to prevent droplets (himatsu) from leaking to the outside than urethane or cloth, but has poor breathability and tends to be difficult to breathe when worn. It was found that cloth masks have better breathability than non-woven fabrics and urethanes, and some have better performance than urethanes.

RIKEN suggests that wearing a cloth which is easy to breathe if you just go to the office, and wearing a non-woven mask when getting together and get close to each other. However, even with the same material, there is a considerable difference in performance depending on the product. For example, even non-woven fabrics with inferior performance to cloth are on the market.

From Riken website: https://www.r-ccs.riken.jp/outreach/formedia/201126.html (in Japanese)

(Left figure)
Simulation image when coughing with a urethane mask. Of the droplets, the yellow dots indicate the particles that leaked through the gap, the blue indicates the particles that leaked through the material, and the red indicates the particles that did not leak and remained in the mask or on the face surface.

(Right figure)
Simulation image when coughing with a non-woven mask. Of the droplets, the yellow dots indicate the particles that leaked through the gap, the blue indicates the particles that leaked through the material, and the red indicates the particles that did not leak and remained in the mask or on the face surface.

Both from RIKEN website