

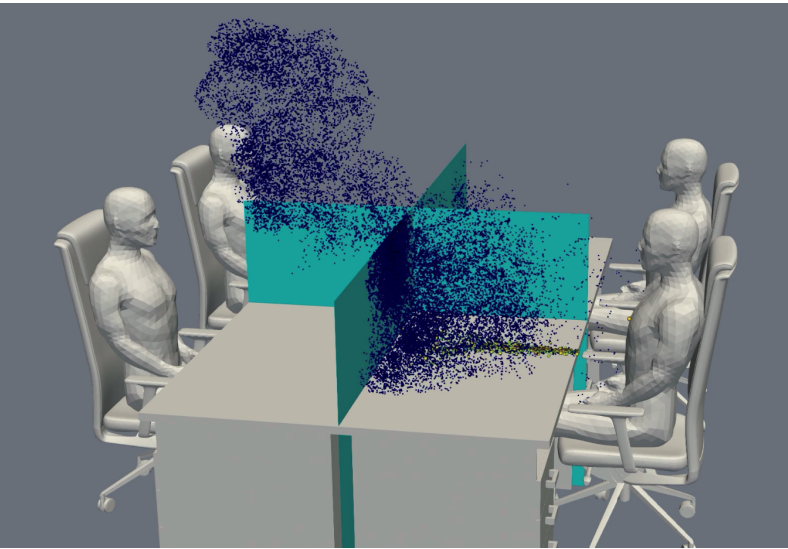
# We Are *Tomodachi*

Autumn 2020

FEATURE

## Overcoming Difficulties amid the COVID-19 Crisis

Adapting to the New Normal with Japan's Innovative Ideas



JAPANGOV  
THE GOVERNMENT OF JAPAN



JapanGov (<https://www.japan.go.jp>)  
is your digital gateway to Japan.  
Visit the website and find out more.



JAPAN GOV  
THE GOVERNMENT OF JAPAN

JapanGov, the official portal of the Government of Japan, provides a wealth of information regarding various issues that Japan is tackling, and also directs you to the sites of relevant ministries and agencies.

It introduces topics such as Japan's economic revitalization policy, including the creation of an attractive investment environment. In addition, it highlights Japan's contributions toward international development, including efforts to spread the fruits of innovation and quality infrastructure worldwide.

You'll also find the articles of all past issues of "We Are *Tomodachi*" (<https://www.japan.go.jp/tomodachi>).



Follow us to get the latest updates!





FEATURE >>>

# Overcoming Difficulties amid the COVID-19 Crisis

<b>The World's Fastest Computer Leading COVID-19 Research</b>	6
<b>Spirit of Mutual Support Meets the Global Challenge</b>	8
<b>New Workstyle Blooming in a Nature-rich Town</b>	10
<b>TOKYO 2020: Athletes Bond with Host Towns</b>	12
<b>Establishing Handwashing as the World's New Normal</b>	14

PORTRAITS OF JAPAN >>>

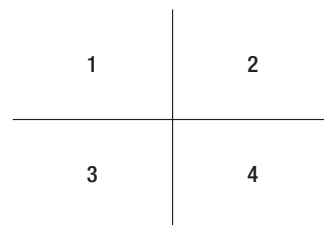
<b>Autumn Specialties of Japan</b>	4
<b>Tsuruoka—Changing the World from Among Rice Paddies</b>	24

UPDATE >>>

<b>Unite and Fight Against Ocean Waste</b>	16
<b>Emergence of Industrial Japan in the Meiji Era</b>	18
<b>Thin Solar Sheets Light Up Africa's Future</b>	20
<b>Powered Exoskeletons Lift Society Up</b>	22

GRASSROOTS AMBASSADOR >>>

Friends of Japan	
<b>Randy Bass</b> —The Legendary American Slugger in Japan	26
The JET Programme	
<b>A Brazilian Woman Who Inspires the Community in Japan</b>	28



**COVER**

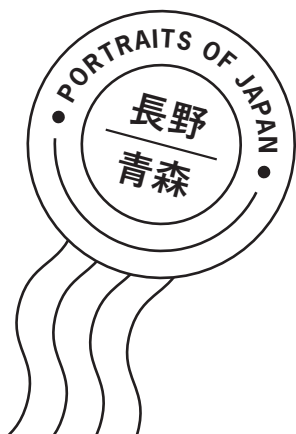
1. Coronavirus droplet simulation by the supercomputer Fugaku (see page 6).
2. Saraya Co., Ltd. is carrying out the "Wash A Million Hands!" Project in Uganda (see page 14).
3. Exchange with the South Sudanese Olympic and Paralympic Team (see page 12).
4. A powered exoskeleton that greatly reduces the physical burden involved in caregiving (see page 22).





# Autumn Specialties of Japan

Cooling winds blow through the Japanese archipelago in autumn. Under the blue sky, a host of seasonal blossoms greet their human admirers, and plants that have endured the torrid days of summer change their colors to announce the coming of the season.





## Autumn Carried by Gentian Purple

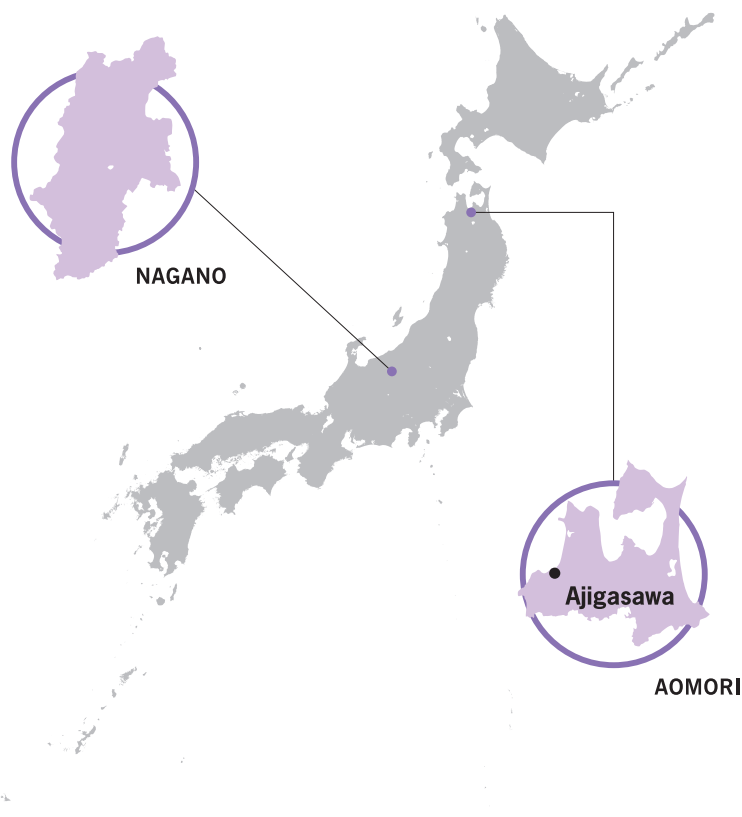
Nagano, a landlocked prefecture in Honshu, is almost entirely surrounded by soaring peaks reaching 3,000m in height. Blessed with cool weather even during the summer months, some of the most famous highland resorts in Japan are located here. The gentian, an alpine flower with beautiful purple blossoms, grows naturally in the highlands. Having been designated officially as the prefectural flower, it is also widely cultivated, and cut flowers are highly praised at international horticultural exhibitions. Japanese researchers have recently discovered that spots on gentian petals have chloroplasts, allowing the flower to photosynthesize in the same way as leaves do - a unique feature that is not found in other flowers. Signaling the change in season, the elegant purple hue readies the local residents for the advent of autumn.

<https://www.go-nagano.net/en/>

## Golden Lives in Clear River

In the far north of Honshu lies Ajigasawa, a town in Aomori Prefecture facing the Sea of Japan. The Akaishi River running through the town arises from sources in the heart of Shirakami-Sanchi, a mountainous area designated as a Natural World Heritage Site by UNESCO. In autumn, the vast forest of beech trees glitters in golden hues, creating spectacular scenery. The pure flowing water has always been home to *ayu*, a small, sweet-tasting fish that holds a special place in the hearts of Japanese people. Usually tinted with a silvery color and with a hint of blue, the *ayu* living in the Akaishi River, benefiting from its water quality, display a golden hue over their entire body. Their dazzling shapes vividly tell of the wealth of this wonderful river.

<http://www.ajiiku.jp/en/>



Ajigasawa | AOMORI 青森



# The World's Fastest Computer Leading COVID-19 Research



In June 2020, Japan's supercomputer Fugaku was certified as the fastest computer in the world. Boasting high levels of performance and versatility, it has already achieved positive results in the fight against COVID-19.

**T**he Japanese supercomputer Fugaku has been attracting a great deal of attention for helping combat the ongoing coronavirus pandemic. As the RIKEN Institute and Fujitsu Ltd. jointly started developing it in 2014, Fugaku can be seen as an amalgamation of Japanese technological prowess.

A top priority of the design was creating a system that is easy to use. Fujitsu's newly developed A64FX microprocessor has achieved

remarkable versatility in running a wide range of software by utilizing the British-made ARM instruction set for working applications. Another notable feature is Fugaku's power-saving capability: last year, it ranked first in the world in the Green500, a global ranking based on the energy efficiency of supercomputers.

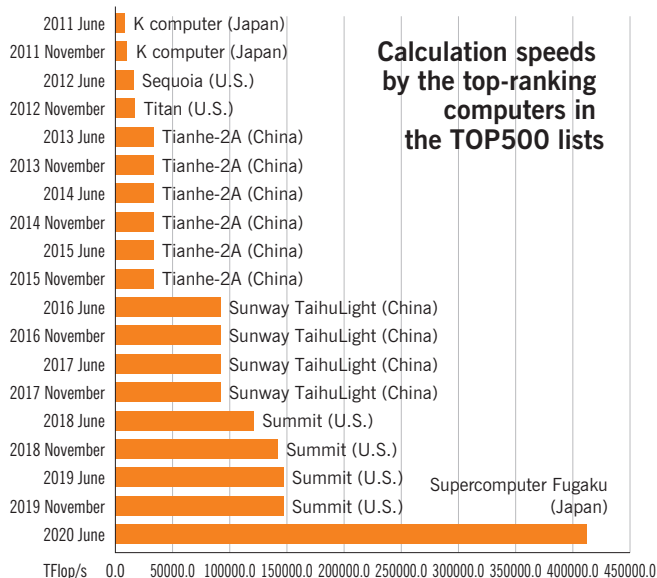
More recently, Fugaku claimed the top spot in several major world supercomputer performance rankings, including the TOP500 (for calculation

speed), HPCG (for performance in practical applications), HPL-AI (for AI processing performance), and the Graph500 (for big data processing). This is the first time that a supercomputer has topped the ranking in all four categories. Moreover, Fugaku significantly outperformed its nearest competitors—a remarkable achievement.

MATSUOKA Satoshi, director of the RIKEN Center for Computational Science, says, "There is no point in



Fugaku is another name for Mt. Fuji. Director Matsuoka of the RIKEN Center for Computational Science says that he wants to utilize the supercomputer in a wide range of applications, serving as a metaphor for the wide plains at the foot of Mt. Fuji.



\* A teraflop refers to the capability of a processor to calculate exactly one trillion ( $10^{12}$ ) floating-point operations per second.



Fugaku has claimed top spots in four fields of performance: computing speed, AI, big data, and application performance. In developing Fugaku, Fujitsu and RIKEN aimed to create a highly versatile supercomputer that can solve various social issues.

being ranked first only in terms of computing speed; what is important is that the machine is successful in a wide range of fields. We thought long and hard about what the machine could be used for and what kind of scientific results could be achieved. I think that Fugaku's winning of four different benchmarks is testament to our efforts to pursue usability and versatility and is thus a significant achievement."

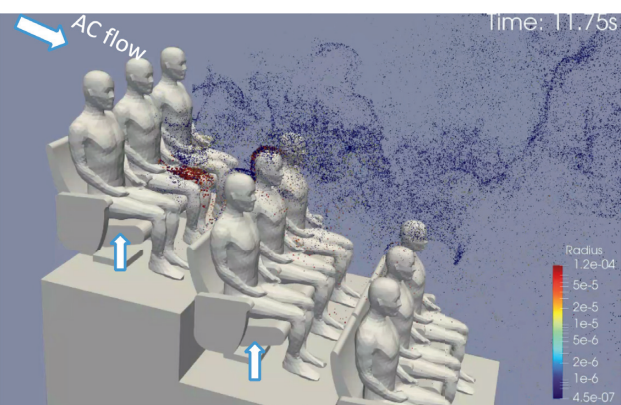
Fugaku is planned to be completed and fully operational in 2021. The computer is expected to contribute to solving social problems in several fields, such as disaster prevention and environmental protection,

coming on the heels of its successful utilization in research on COVID-19. The supercomputer was put into trial use in April 2020 following the global outbreak of the coronavirus. A new research finding was then announced dealing with droplet infections in an indoor environment, reminding the public that wearing masks and maintaining ventilation are effective ways to stop the spread of the virus.

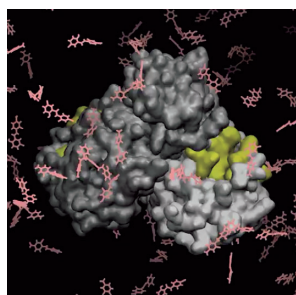
Furthermore, Fugaku has been contributing to therapeutic drug research. Specifically, the supercomputer has been used to find a potentially effective drug for COVID-19 from a pool of existing

medications. Focusing not only on anti-viral drugs, but also on medications for such diseases as cancer and diabetes, an analysis was made of 2,128 different drugs by simulating the process of binding between the drugs and the protein "main protease," which promotes the viral proliferation of COVID-19. Though simulations would generally take a normal supercomputer one year to do, Fugaku was able to complete them in just 10 days, enabling the existing drug candidates to be narrowed down to just a few dozen. Cell experiments and clinical trials will be conducted from now on to verify the effects of the drugs.

Research is also underway to investigate the behavior of the novel coronavirus. If Fugaku can reveal protein structures and their mutations (a difficult feat with laboratory experimentation), it could have a profound impact on the development of vaccines and therapeutic drugs. "Fugaku has the capability to run extremely complex simulations—something that we previously could have only dreamed about," maintains Matsuoka. "The realization of a society where people can live safely and securely is one of the key missions for Fugaku. I hope that it will contribute to the containment of COVID-19 as soon as possible." \*



A simulation showing the characteristics of airborne droplets coughed out by a person on a stage in an auditorium. Analysis was also done on a number of assumed environments and ventilation conditions, including those in hospital rooms, offices, and classrooms.



Molecular-level simulations can reproduce the process in which drugs bind with the proteins that propagate the novel coronavirus. The picture shows an image of the simulation: the drug's molecule, in pink, surrounds the protein.



# Spirit of Mutual Support Meets the Global Challenge

The spread of COVID-19 has exhausted supplies of medical-isolation gowns and sanitary ethanol, triggering many Japanese companies to feel a deep-seated desire to help, leading them to take actions to address the shortage. In various forms, their contributions are offering society respite from the suffering caused by the pandemic.

**W**hile treating increasing numbers of patients this spring as the novel coronavirus proliferated, Japanese healthcare workers were faced with a serious shortage of medical-isolation gowns. As they sought a way to promptly ensure a steady supply within Japan, some companies from other industries volunteered to aid in the production.

Upon learning about a labor shortage for the manufacture of

the gowns, ANA Group, owner of the major Japanese airline All Nippon Airways Co., Ltd., decided that it was time, with the continuing slump in air travel caused by COVID-19, to make what contributions it could, even in an area completely unrelated to the company's central business.

In addition to sewing, the process of manufacturing gowns includes many other tasks that require human labor. Supporting Valley LLC., a manufacturer in Nara Prefecture that

is making medical-isolation gowns to order, without asking for anything in return, ANA Group undertook some of the basic work processes, such as cutting fabric for sleeves, sewing ribbon ties, and inspecting of the products. Senior Director of Corporate Planning MURATA Kanako says, "The production of medical-isolation gowns must be perfectly sanitary. As employees of an airline, we always train ourselves to not only strive for perfection in terms



ANA Group's sewing operations, which took place at the company's training facility, continued while the workers maintained social distance.



No contaminant—not even a single strand of hair—is acceptable when it comes to medical-isolation gowns. ANA personnel highly experienced in exhaustive safety management are perfectly suited to performing meticulous checks.

of safety and of service quality, but also to work as a team to achieve such perfection. I felt that we were able to fully leverage our ability throughout this challenge of gown manufacturing.”

According to ANA, over 1,600 employees volunteered for this project. People from a variety of positions including pilots, cabin attendants, and mechanics, formed teams helping in the production of approximately 50,000 gowns in around six weeks. The volunteers succeeded on account of their desire to make a personal contribution to society under the challenging conditions posed by the pandemic.

Another item in short supply has been ethanol-based sanitizer. The Japanese regulations governing ethanol—a type of alcohol—differ depending on whether it is used for producing alcoholic drinks or disinfectant. With a massive shortage of sanitary ethanol, sake brewers took part in addressing the problem by using their abundant stock of ethanol for brewing.

Kikusui Shuzo Co., Ltd., a venerable brewer with a wealth of expertise, was among the first to come out with a product. Since the 1920s, when the company installed the first refrigerated storage facility in Japan, Kikusui Shuzo’s ethos has always been about attempting new challenges. It may be this challenging spirit that empowered the company to overcome a variety of hurdles, including a regulation that required the installation of a dedicated production line to make ethanol for disinfectant. After consultations with the authorities to clear all regulatory issues, Kikusui Shuzo finally decided to produce and sell sake with the same alcohol concentrations as sanitary ethanol. In April, it started selling a new product named “Alcohol 77,” a

spirit containing 77% alcohol, which soon went viral on social media and garnered widespread appreciation for the company’s goodwill and social contribution.

Kikusui Shuzo was flooded with inquiries about the sake, and shipped a total of 100,000 bottles in a period of four and a half months.

Kikusui Shuzo was spurred into taking this initiative because it wanted to repay the enormous support that it had received when torrential rains struck western Japan two years earlier. The brewer’s office at the time was flooded with a meter of water, causing the road outside to collapse. Half a year elapsed before the office could resume normal operations, but during that time, the company received a great amount of help from many sources. Kikusui Shuzo’s president, HARUTA Kazuki, says that this is why he now wants to play a supportive role as a sake maker in society.

“With people worrying about supply shortages, we were able to provide reassurance that supplies are available. Sake is a non-essential item that most people would not hesitate cutting out of their budget, but I’m glad we were able to achieve new value.”

By identifying what each can do and supporting society, businesses are demonstrating resilience in the face of COVID-19. \*



Kikusui Shuzo’s president Haruta says that his company developed Alcohol 77—the ethanol-based sanitizer—out of a desire to benefit society.

Kikusui Shuzo is a long-established brewery in Kochi Prefecture that produces a wide range of alcohol, from sake to *shochu*—Japanese traditional distilled spirits.





# New Workstyle Blooming in a Nature-rich Town

As people's lifestyles change due to the COVID-19 pandemic, the town of Shirahama—a famous tourist destination in Wakayama Prefecture—is attracting attention for its innovative approach to work-style reform



The panoramic view of the ocean as seen from NEC Solution Innovators' Shirahama Center.  
The open-plan space encourages greater communication within the workplace.

Shirahama, a town situated in the western Japanese prefecture of Wakayama, has long prospered as a resort destination owing to its warm climate, beautiful coast, hot springs, and picturesque scenery. Thanks to its convenient location—only an hour's flight from Tokyo—more and more companies have recently set up satellite offices in the town, revamping their traditional working styles by letting employees work while enjoying the amenities of the resort area. Earlier in 2020, as the pandemic made teleworking a reality for many workers and provided them with opportunities to work outside the office, Shirahama came to

stand in the spotlight as a suitable destination for both travel and work, especially for “workcation,” the combination of work and vacation.

IT firms from Tokyo had already begun moving their offices and sending their employees to Shirahama's IT Business Office, the complex maintained by the town, in as early as 2014. One of the companies new to the town was NEC Solution Innovators, Ltd., which opened a satellite office there in 2016. From its office featuring a panoramic ocean view, the employees, who used to work in urban settings, now provide system support services remotely for corporate clients nationwide. After

work or on their days off, they can easily visit hot springs, exercise in a natural environment, and participate in traditional events and other local activities in ways that would be impossible if they were based in a big metropolitan area. Not only does their new lifestyle afford them quality free time, then, but it motivates them to work better and harder as well.

Another of the companies that relocated to Shirahama is QualitySoft Corporation, which specializes in developing cloud services and software. The firm moved its Tokyo headquarters there in 2016, having bought a corporate training facility and then converting it into “Innovation Springs,” a complex that comprises an office building, co-working space, a seminar room, accommodation for workcations, and common areas. QualitySoft regularly hosts a variety of activities including programming classes for children, various networking events, and startup camps for participants from across Japan. Through those events, it aims to encourage a wider range of people to be interested in IT careers, while spurring innovation that addresses local issues.

The company's president, URA Kiyoharu, has high expectations for the town as an important base, saying, “A setting with abundant

natural surroundings leads to inspiration, and interaction between diverse people leads to innovation. Amid the changes to our way of work because of COVID-19, the growing number of talented people coming here ought to make Shirahama even more interesting.”

The increasing number of companies and their employees relocating to Shirahama also brings benefits to the local community by boosting its tourism industry. Formerly, the lack of visitors in the off season created problems for the town, but the expanded number of IT company offices has resulted in more business trips being taken there, as well as more visitors on weekdays and in winter—normally quiet times.

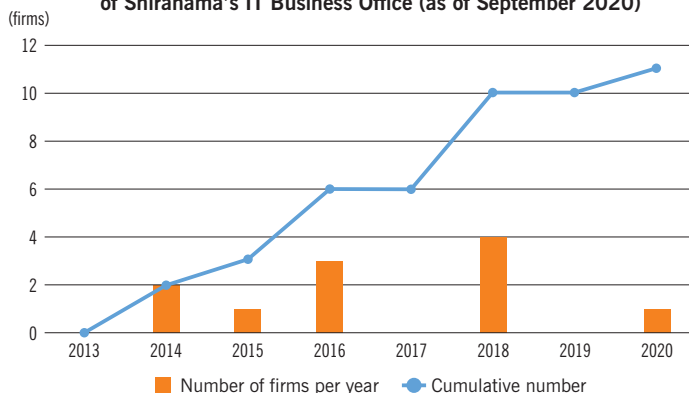
The inflow of companies is now leading to new possibilities for the town’s existing industries. For example, NEC Solution Innovators, mentioned above, has been collaborating with local entities to collect tourism-related statistics and apply them to the development of apps and new services. According to SAKAGUCHI Shingo, who heads the company’s Shirahama Center, “Our involvement with community members has helped us leverage our knowledge to consider how we can enrich Shirahama.”

Companies’ efforts in the town are thus rewarding employees with a better work-life balance while stimulating the local economy: a win-win situation. Even after the pandemic ends, there will still undoubtedly be more people—not just companies—moving location to explore a new working lifestyle. Shirahama, a resort town attracting an increasingly diverse range of people, is emitting bright rays of hope for a silver lining during these difficult times. ✱



The town of Shirahama has picturesque scenery, a beach, hot springs, and an airport all in close proximity to each other. Adventure World, which combines a zoo, aquarium, and theme park into a single complex, is another popular tourist spot.

**Trends in the number of firms setting up workplaces in the related facilities of Shirahama’s IT Business Office (as of September 2020)**



QualitySoft’s office is surrounded by a grove of trees. Most of the interior areas, designed for a comfortable work environment, were built with locally-produced lumber.



The South Sudanese athletes practice on grounds in the city with the support of coaches, interpreters, and other local volunteers.



FEATURE >>> Overcoming Difficulties amid the COVID-19 Crisis

# TOKYO 2020: Athletes Bond with Host Towns

While the spread of the COVID-19 pandemic has pushed the Olympic and Paralympic Games Tokyo 2020 back a year, the challenges posed by the pandemic have strengthened the bonds between athletes from across the globe and their official host towns around Japan



The Mongolian Paralympic track and field team works out in Yaizu, which boasts a temperate climate year round.



The COVID-19 outbreak has had a massive impact on several teams of athletes who had already arrived in Japan to train for the Olympic and Paralympic Games Tokyo 2020.

One of those groups was the Mongolian Para-athletics team, which had been training in Yaizu, Shizuoka Prefecture since February. Although the athletes originally planned to stay in Yaizu for no longer than a month, flights to their country were suspended as of February 28. As the team was forced to extend its stay because of that



predicament, Yaizu City supported the athletes until June. During that time, thanks in part to the city's temperate climate, the athletes were able to continue to focus on their training, and all of them managed to beat their personal bests.

As word about the stranded Mongolian Para-athletes spread throughout the city, the local residents pitched in to help, offering the athletes masks, fruit, and other forms of support. ONODA Satoshi of Yaizu City Hall says, "We consider these athletes to be members of our community. I understand that it is difficult to train in Mongolia for months on end because of the cold weather there. Although it will depend on the coronavirus situation, I hope that they will be able to come again this winter to train in the warm weather of our city." With the Tokyo 2020 Games now less than a year away, Yaizu is set to host such athletes and will make sure that they have what they need to join the competition in top condition.

Meanwhile, another city, Maebashi in Gunma Prefecture, is the official host town for five members of the South Sudan Athletics team. While South Sudan gained independence in 2011, the young state is in a severe



The South Sudanese athletes take Japanese classes in the morning. At their request, they are also learning how to use PCs.

situation with ongoing insecurity left over from the civil war. Refugees and internally displaced persons number 4.3 million—over one-third of the state's citizenry. As the country is unable to provide its team with an adequate training environment, Maebashi City expressed its willingness to host a pre-Games training camp for an unusually long period of ten months. The city secured funds for the camp through donation-based crowdfunding, and was able to welcome the South Sudanese team in November 2019. Not long after that, however, came the onset of the COVID-19 pandemic. When the Tokyo 2020 Games were officially postponed by a year, Maebashi City decided to keep hosting its South Sudanese

The South Sudanese team also has opportunities to experience Japanese culture. Here the athletes try their hands at pounding mochi.



athletes all the way through to the end of the Games.

"If the athletes we're hosting show what they can do at the Tokyo 2020 Games, South Sudanese sports could become a unifying force for their whole nation," says KUWABARA Kazuhiko of Maebashi City Hall. "We'll do what we can to help make that happen. Having the team in Maebashi is great for our community, too—it's a chance for us to appreciate how lucky we are to live in a peaceful environment where sports are a normal part of everyday life."

The athletes train day in and day out, with Japanese coaches and volunteer interpreters helping. Just eating nutritious meals every day and being able to run with all their might on a quality track constitute a remarkable experience for them, and they all say, "We want to use the time remaining to train hard and put in a good performance for the sake of our families, friends, and all the citizens of South Sudan."

Many hardships have arisen from the COVID-19 pandemic, but the bonds forged between the official host towns and the world's athletes—who have set their sights on the Tokyo 2020 Games—are sure to surmount these trying times and become even stronger. ✿

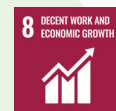


The Mongolian team says that it was encouraged by messages of support from the Yaizu City residents. The team also received a Special Sports Citizen Certificate from Yaizu City Hall as a show of eternal friendship.



# Establishing Handwashing as the World's New Normal

Handwashing has gained new appreciation as the first step towards preventing infection. A Japanese manufacturer of cleansers and disinfectants is engaged in sharing the country's handwashing habits with the world, contributing to the achievement of the SDGs.



Children enthusiastically washing their hands at a washstand. Schools that have successfully implemented handwashing habits have seen a remarkable drop in problems caused by infectious disease, such as diarrhea.

In the global response to the COVID-19 pandemic, there is a renewed awareness of the importance of handwashing practices. Not only as a countermeasure against infection, but also in relation to providing health care and managing sanitation in hospitals, handwashing is one of the basic hygiene practices. At the same time, it is also a key to achieving “good health and well-being for all,” which is one of the Sustainable Development Goals (SDGs).

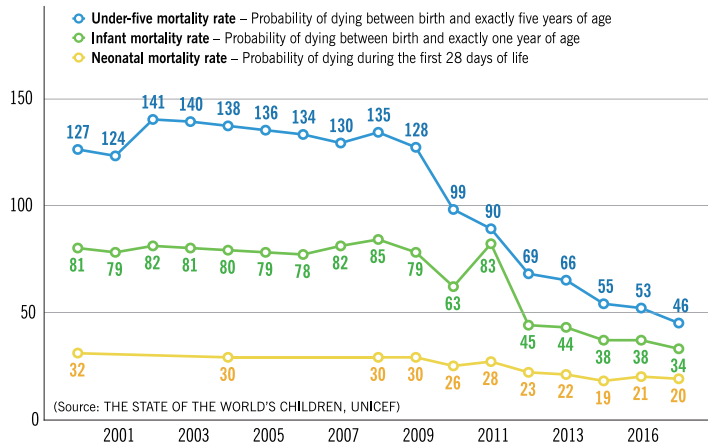
In Japanese society, where there are many opportunities to learn the value of handwashing during childhood, the practice has become a deeply rooted custom. Saraya Co., Ltd. has been making efforts for many years to disseminate the Japanese approach to handwashing to the world. Following an outbreak of dysentery after World War II, the firm developed Japan's first liquid medicinal soap and dispenser, and also promoted handwashing throughout Japan. Then, it developed

a quick-drying alcohol disinfectant that became widely used, notably in medical facilities.

Saraya, aiming to improve the world's hygiene, has been active in Asia and Africa for many years. One remarkable example is the “Wash A Million Hands!” project that has been implemented in Uganda since 2010. In this project, Saraya supports the UNICEF initiative to promote handwashing via donations from a part of its sales. The project's activities include promoting a simple

## Changes in infant mortality in Uganda

(per 1,000 live births)



Reducing neonatal mortality and under-five mortality is an SDG target. Uganda is showing an improvement in both rates, and Saraya's activities have definitely played a role.

"We still have a lot of work ahead of us for Japanese standards of handwashing to become normal everywhere," President Saraya emphasizes. He himself has traveled to Uganda to raise awareness there of handwashing.

handwashing device called "Tippy Tap," as well as training people in proper handwashing with the use of soap.

SARAYA Yusuke, the firm's president, says, "In order for handwashing to be truly effective, it must become a firmly established custom in a society. For that to happen, persistence is absolutely necessary. That's why we have continued our support activities for many years." In Uganda, the number of people who wash their hands with soap after using the toilet has nearly tripled compared with the period before the project started, and the mortality rate of children under the age of five has also decreased by 60%.

Since 2012, the company has been working together with communities in East Africa to promote the wider use of alcohol disinfectant, as well as guiding medical personnel to become more conscientious about disinfecting their hands. That has resulted in a dramatic reduction of healthcare-associated infections, particularly among expectant and nursing mothers, as well as infants. To ensure a stable supply, the firm has initiated local

production and sales of its alcohol disinfectant, which is now being utilized for various programs to prevent infections including Ebola hemorrhagic fever and COVID-19.

"Over the decades, the Japanese people have become keenly conscious of personal hygiene. I feel that this experience and knowledge can contribute to the hygiene and health of people around the world," says President Saraya. The company has incorporated the SDGs into its corporate activity

goals, and continues to engage in various programs in the areas of environment and health, in addition to hygiene. Those programs include activities such as preserving tropical rainforests in regions that produce palm oil—a raw material for soap and cleanser—and raising consumer awareness of ethical consumption. This momentum, generated by parallel efforts on both the personal and entrepreneurial level, will make it possible to successfully achieve the SDGs on a global scale. \*



Understanding the importance of thoroughly disinfecting hands and fingers leads to a change in behavior, which is linked to a measurable reduction of healthcare-associated infections. To bring that about, Saraya works energetically to raise awareness about hygiene management among medical personnel.



# Unite and Fight Against Ocean Waste

— Visit Hakui and save its boundless, beautiful beach —



Left: The Chirihama Coast is one of the few beaches in the world where it is possible to drive a car. It is particularly exhilarating to have the waves splash up against your vehicle. Top: Myojo-ji Temple was founded over 700 years ago. Its pagoda, perched atop a low hill, speaks to the temple's majesty.

**E**arly in the morning, surfers arrive one after another to an empty beach as the waves lap the shore. But instead of surfboards, they

are carrying large trash bags. With practiced motions, they then collect the garbage scattered across the beach: empty cans, plastic bottles, and fishing nets. The surfers' bags soon fill up, mainly with plastic trash.

The beach lies on the Shibagaki Coast in the city of Hakui, Ishikawa Prefecture. Blessed with abundant natural surroundings along with many historical temples and shrines, Hakui is home to a beach of exceptional beauty facing the Sea of Japan. While the Chirihama Coast is a very popular sightseeing spot because it is the only beach in Japan where one can drive a car on the sand, the Shibagaki Coast is also famous, and, well-known

as a good surfing spot, many local and visiting surfers enjoy its good waves. A major problem in recent years, however, has been the increase in ocean garbage jeopardizing the beach's scenic beauty. While debris



Three local volunteer organizations, whose members come from all walks of life, have been doing everything they can to protect Chirihama Beach, a treasured part of the community.



At daybreak along the Shibagaki Coast during the summer, surfers can already be seen out cleaning up the beach. They even pick up tiny pieces of broken plastic one at a time by hand, amid the debris washed in from the ocean.

has always washed ashore here due to the ocean current, recently the amount of plastic trash drifting in from nearby countries is striking.

At the G20 Summit in June 2019, countries agreed to swiftly take action both nationally and internationally, in partnership with relevant stakeholders, to prevent and significantly reduce discharges of plastic litter and microplastics to the oceans. In addition, the “Osaka Blue Ocean Vision,” which aims to reduce additional pollution by marine

plastic litter to zero by 2050, was shared.

Since the 1980’s, though—well before that international action—local volunteer organizations have been regularly conducting Hakui beach cleanups. In 2019, their activities led to the collection and disposal of nearly four tons of garbage. Local children have also joined in the action. Meanwhile, one of the groups that organizes the work additionally arranges for lectures at local junior high schools to discuss the problem of ocean garbage. The group also disseminates information to a widespread audience on social media, helping the message to reach young people as well. The representatives of this group said,

“Our community has long had a deep-rooted desire to preserve our valuable sea for the future, so it is no wonder that cleaning up our own beach is part of our daily routine.”

The beach-cleaning activities thus did not start from a sense of obligation, but rather stemmed naturally from a desire to protect the beloved sea. The surfers on the Shibagaki Coast felt the same passion, as they wanted to beautify the sea, which allows them to enjoy surfing, as much as possible, and they have continued their spontaneous efforts for nearly two decades now. Even with large cleanup events restricted due to COVID-19, the surfers are still working eagerly, day in and day out, to pick up garbage in between their wave-riding.

The people of Hakui teach us that the initial step to halting the spread of ocean garbage is first and foremost to hold the sea dearly. If people around the world could likewise love the oceans, caring more deeply about the natural environment, the result could be a reduction in the amount of ocean garbage that threatens marine ecosystems. ✿



A huge amount of garbage drifts ashore onto a beautiful beach in Hakui. Much of the plastic waste is labeled with non-Japanese writing.





# Emergence of Industrial Japan in the Meiji Era

— Industrial Heritage Information Centre —

The Industrial Heritage Information Centre (IHIC) opened to the public on June 15. The center introduces a comprehensive picture of the Sites of Japan's Meiji Industrial Revolution: Iron and Steel, Shipbuilding and Coal Mining. Combined, these are designated as one of Japan's UNESCO Cultural World Heritage Sites.



KATO Koko serves as the managing-director of the center. She played a pivotal role in getting the Sites of Japan's Meiji Industrial Revolution inscribed as a Cultural World Heritage Site.

shipbuilding and coal mining).

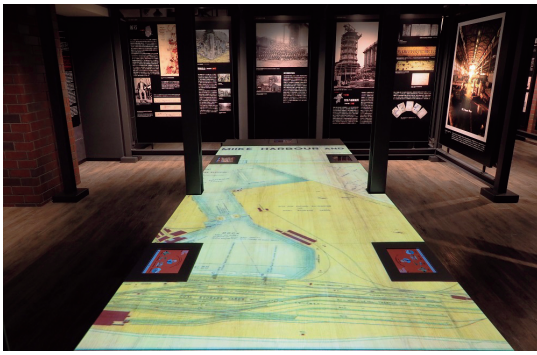
The Industrial Heritage Information Centre, or IHIC, was built in Shinjuku, Tokyo in the spring of 2020. Established as a public educational facility that focuses on Japan's Meiji Industrial Revolution, the center is a communication hub for industrial heritage information. The exhibits are divided into three zones. Zone One gives visitors an overview of the sites of Japan's Meiji Industrial Revolution, with a theater showing the long and challenging nomination process for a World Heritage site, and a panoramic Liquid Galaxy display system introducing the full history of each component part of the site.

Zone Two provides a detailed description of each site and, with comments from foreign experts, illustrates its historical value by tracing

Visits to the center currently require an appointment, which can be scheduled online at <https://www.ihic.jp>. Admission is free. Location: 19-1 Wakamatsu-cho, Shinjuku, Tokyo (Annex to the Statistics Bureau, Ministry of Internal Affairs and Communications).

The sites of Japan's Meiji Industrial Revolution, inscribed on the UNESCO World Heritage List in 2015, consist of 23 component sites spread throughout 11 cities and eight prefectures in Japan, covering from Iwate in the north to Kagoshima in the south. The sites include several operational industrial facilities, such as Mitsubishi Heavy Industries Nagasaki Shipyard, and the Imperial Steel Works in Yawata (presently the Yawata Works of the Nippon Steel Corporation), as well as

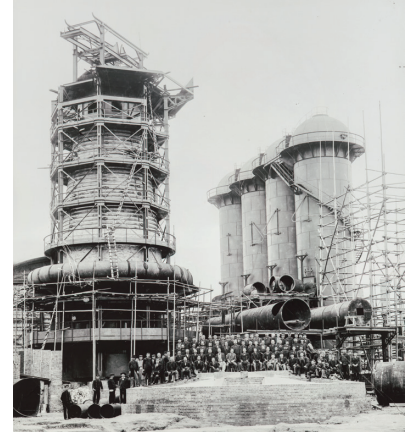
large-scale industrial infrastructure like Miike Port, and Hashima, the latter being known for its ruined undersea coal mine. Viewed together, the 23 component parts explain how a secluded archipelago in the Far East, having once enacted strict control over the import of Western science and technologies, was able to quickly lay the foundation for an industrial nation from the mid-19th century—a nation that, in just over fifty years, achieved rapid industrialization, particularly in heavy industries (iron and steel,



A photo of the Imperial Steel Works in Yawata, a symbol of Japan's modernization (1900 photo).

©NIPPON STEEL Kyushu Works

The central table in Zone Two features visual images beamed from an overhead projector, as well as tablet computer terminals. Explanations of the industrial heritage sites by foreign experts are available in both English and Japanese.



the course of Japan's rapid industrial development from the mid-19th century to the beginning of the 20th century, thereby showing how each site made significant contributions to this development, such as spearheading the establishment of the core heavy industries.

Lastly, Zone Three is an archive center and library open to the public. Visitors can access historical archives related to modern Japanese history from the Meiji to the Showa period (the mid-19th century to the end of the 20th century) currently with a special focus on Hashima Island during World War II, comprising official and non-official government documents, documentary photos, newspaper articles, testimonies of survivors from World War II, and a collection of evidence with clear provenance.

Now, plans are being implemented to strengthen the link between the center in Tokyo and visitor centers for related sites in other regions.

Such plans will allow the center to effectively provide information that focuses on the World Heritage value of the 23 locations as a singular ensemble of industrial heritage sites.

"Until the mid-19th century, the Tokugawa Shogunate's policy of isolation restricted access to Western science and technology. However, the Meiji Restoration opened Japan and transformed its society—albeit with great hardship—initiating a dynamic half-century in which human resources were developed to serve as the basis for an industrial state. We want future generations to know that the Japan that we see today exists only because our ancestors in this period of hardship never gave up, despite the repeated difficulties they encountered," says KATO Koko, the managing-director of the center.

The National Congress of the Industrial Heritage (NCIH) appointed by the Japanese government to operate the center, offers AR (augmented reality) guide maps of each area

and a related application in English, Korean, and Chinese. The maps and application have been designed with features that are fun to use, including a function that brings up heritage images when a smartphone is simply waved over a map. The NCIH is also preparing additional functions for the exhibits in the center to allow visitors, by waving a smartphone over them, to access the explanation of each exhibit in multiple languages.

"Having started with no modern manufacturing capability, Japan endured great difficulties in fostering its industrial sector, but by the dawn of the 20th century it had won international recognition as an industrial state. I believe that our mission is, even to the point of including errors made along the way, to communicate that process to both this and future generations," explains center managing-director Kato. An immersive experience of that amazing process awaits all visitors to the center. ✱



The guide application features AR technology. A full range of features allows visitors, simply by waving a smartphone over the guide map, to bring up three-dimensional images of heritage sites, or to watch videos, allowing them to deepen their knowledge.

The multi-display platform in Zone Three surrounds the viewer with panoramic images, giving an immersive experience of the industrial heritage sites. There are plans to archive industrial heritage information from around the world.





# Thin Solar Sheets Light Up Africa's Future

Solar-powered streetlights made by a small roofing company in rural Japan now light up roads and schools in Africa. In what special way do these lights illuminate African villages without access to electricity?



The solar sheets designed by Kawaguchi Steel can be installed on tin roofs because of their light weight. Before the school had electricity, all the classrooms were dark, and on cloudy days, classes were sometimes even held outside.



In 2015, a small Japanese roof construction company installed in a Nigerian village 65 streetlights, which feature flexible solar panels wrapped around the lampposts. In conventional solar-powered streetlights, the solar panel is positioned above the light itself; however, in Africa, there is so much dry dust and sand in the air that particles soon collect on top of the panels, preventing the lights from operating. Those problems can be eliminated with special solar sheets that are easy to remove and maintain.

The thin, lightweight solar panels, branded Luz-solar, were developed by Kawaguchi Steel Industry Co., Ltd.—located in Saga Prefecture in southwestern Japan—which specializes in the design and construction of metal roofs for large-scale buildings such as factories. Its chief executive officer, KAWAGUCHI Nobuhiro, thought that his firm, rather than just take on construction work, should also develop and sell its own products, focusing its efforts on renewable energy as environmental awareness increases around the

world. “As a roofing specialist, I recognized that industrial solar panels have a huge potential,” reflects Kawaguchi. “There’s no reason not to use available roof space. I believe that electricity should be generated in the places where it is used.”

However, the typical buildings and facilities are not strong enough to withstand heavy solar panels on their roofs. That is why the company, along with a solar panel manufacturer, jointly developed a thin, lightweight solar sheet, which is only 1mm thick and weighs just about one-seventh as much as regular solar panels, and thus can be flexibly installed in various spaces, even on curved surfaces. Nevertheless, the sales of the product failed to take off in Japan because the sheets were unable to



Pictured left is a flexible solar sheet. Streetlights with such sheets wrapped around their poles not only introduce light to areas that previously lacked electricity, but also play a part in improving security there.



be mass-produced at that time and also required costly reinforcement against typhoons.

Unperturbed, Kawaguchi took his product overseas to Africa, where he was convinced that there would be solid demand. Africa does not suffer from typhoons or hurricanes, and the company's solar sheets can be installed even on houses with tin or thatched roofs. In Nigeria, the sheets have provided lighting for schools, clinics, and police stations, as well as for streetlights. Not only has the lighting helped to improve security at night, but it has also created lighted areas underneath where people can gather together at night to sell their wares. "People were delighted that their villages had come to life," says Kawaguchi, with a sense of fulfillment.

Since then, the company has extended its support to 10 or so other African countries—including Burkina Faso, Benin, and Rwanda—bringing electricity to schools, orphanages, refugee camps, and other venues. In 2019, an association known as Good on Roofs was established to provide wider support more quickly, with a novel scheme launched to support electrification in Africa by generating more funds through power-purchase agreements in Japan.

In this scheme, companies in Japan that are willing to have their

roof space utilized install solar panels on their roofs without incurring any charges. Instead, they are paid rent for their roof space, a portion of which is returned as a donation for electrification projects in Africa. The participating companies can benefit by taking advantage of renewable energy without any initial investment while helping to support developing countries.

The next challenge for Kawaguchi is to bring electricity into African homes with children. The plan currently under development is to charge portable lanterns during the day via solar panels that are installed on school roofs, then to have the

schoolchildren take the lanterns back home with them at the end of the school day. "Education makes a country. Having these lanterns will motivate parents to encourage their children to go to school," remarks Kawaguchi.

The electrification rate of rural areas in the sub-Saharan region is only about 30%, and Good on Roofs' mission is to boost that figure to 50%. Flexible solar sheets, an idea born of a specialist roof constructor in Japan are thus helping to light up Africa's future. ✿



In Benin, Kawaguchi (second from left) discusses the electrification of schools and the installation of streetlights in villages.



# Powered Exoskeletons Lift Society Up

Simply by wearing a special device, people are now able to easily lift heavy objects, alleviating strain on the body. Powered exoskeletons from Japan will give support to our way of life in the future.

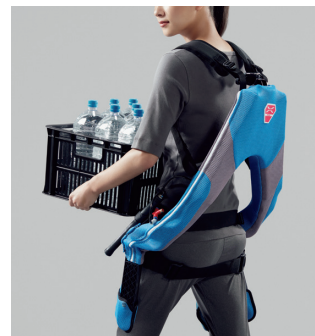
Confronted with an aging population, Japan is progressing technological developments and their social implementation in order to enable its population to live long and healthy lives. A powered exoskeleton, one of these new technological developments, is a device that runs on a system of motors, elastics, and springs to support the movements of various parts of the body, such as the arms, legs, and lower back. The version for the lower back, for example, can be worn simply as a backpack, but it allows wearers to

lift heavy objects weighing tens of kilograms with only a low burden on the body. Such wearable machines are increasingly being used in the field of caregiving and in workplaces where repeated handling of heavy items is required.

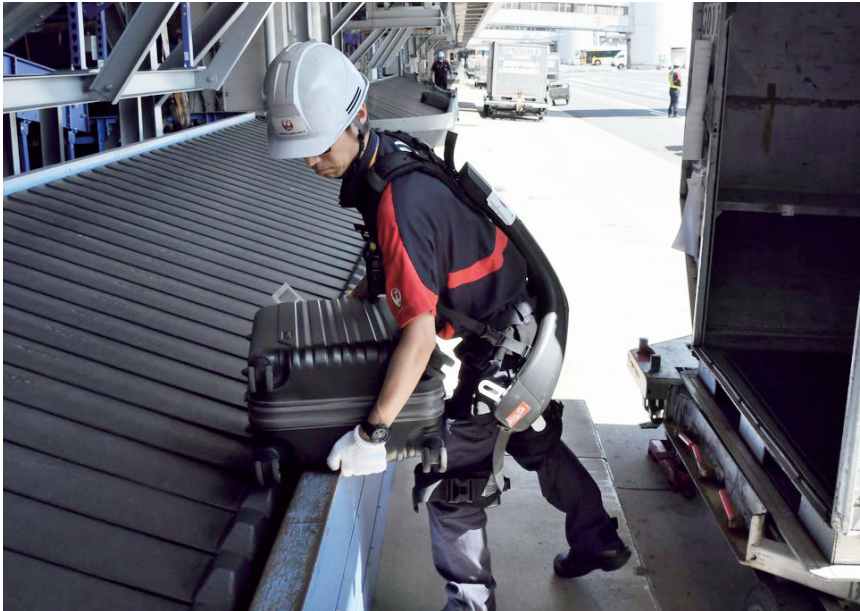
Innophys Co., Ltd. has developed a powered exoskeleton for the lower back called the Muscle Suit Every, which functions using air pressure, initially pumped by hand into the suit. Because of its simple structure, the suit is lightweight at just 3.8kg. However, it can achieve a maximum assistive force of 25.5kgf (which is

equivalent to reducing a load by 25.5kg). Priced at approximately US\$1,500 per unit, the suit is also affordable for the average consumer. In consequence, it has quickly gained widespread recognition, meeting the needs of everyday-life situations, from nursing in the home to cultivating vegetable gardens and shoveling snow.

Contrastingly, the Atoun Model Y, a wearable robot developed by Atoun Inc., is powered by electricity, and has a built-in sensor that detects movement in the body's core, then controls the power via the motor. The robot automatically and smoothly assists the human body, according to the situation and the type of work involved. Besides supporting the lower back, Model Y will soon



The Muscle Suit Every spotlights the various needs of people—including those of caregivers—which were once overlooked in the market. The company's aim is to enable more people to use the device by lowering its price.



Top: Atoun CEO Fujimoto wishes to create something that supports the diverse physical abilities of all individuals, thus making something that everyone feels attracted to.  
Left: An airport baggage-handler wearing the Atoun Model Y.

be equipped with the additional function of supporting the arm's movements and will see further functional reinforcements in the future. Because of its durability, along with its ability to provide stable support even for sustained work over long hours, the Atoun Model Y suit is being introduced in professional work settings, such as manufacturing and logistics. A specific example is in ground handling at international airports, where the loading and unloading of baggage is carried out repeatedly.

Both companies stress that they are not only aiming to support workplaces, but also to contribute towards helping people have longer and healthier lives. "In the future, I would like to develop something that can be worn by persons receiving care, rather than caregivers, to help them move more easily," comments KOBAYASHI Hiroshi, an engineering professor at the Tokyo University of Science, who is the developer and founder of Innophys. As a step towards this goal, the firm has, in collaboration with the Japanese government and academia, initiated

research on the effective use of the Muscle Suit Every for physical training. This research is aiming to explore measures to prevent the decline in the strength and mobility of the human body, which leads to decreased participation in society and eventually to the need for full-time care.

As well as the Model Y, Atoun has also developed a powered exoskeleton to support walking. The company, in tandem with a travel agency, has launched a sightseeing tour in which participants in need are equipped with the suits. One participant of the tour, who wore the suit to climb to the top of a long 400-step stone staircase, said with a smile, "As I cannot move my knees well, I was nervous even to go out with my friends. But when I put this device on, I was able to lift my legs very softly and lightly." At some point in the near future, remotely operated fitness training will become a reality. Information from sensors that are built into the suit is shared wirelessly, allowing a trainer to control the device from distant locations to assist or adjust loads on the wearer. In this manner,



Participants of a sightseeing tour wearing the Himico, a powered exoskeleton that supports walking.

the device will be able to provide personalized exercise support at home for the physically weak or for those who just want to stay fit. "The ultimate goal is to create a world like that found in science fiction—such as the movies and cartoons we watched as children—where people can move with fewer physical restrictions," says Atoun President and CEO FUJIMOTO Hiromichi enthusiastically. The functions of these powered exoskeletons from Japan will be further enhanced, helping to enrich society in the future. ✨



Stretching over 12.5ha, the Tsuruoka Science Park (center) nestles among the rice paddies. Towering in the east of the city is Mt. Gassan, a focus of mountain worship since ancient times.

# Tsuruoka Changing the World from Among Rice Paddies



Suffering from a dwindling population, Tsuruoka City in northeastern Japan has now paved the way for the revitalization of the region through the power of bio-ventures

**F**acing the Sea of Japan, Tsuruoka City in Yamagata Prefecture lies in the Tohoku region of northern Honshu. The fertile land here, surrounded by mountains on one side and the ocean on the other, produces a treasure trove of culinary ingredients, such as rice. No wonder, then, that this beautiful municipality



"All the food in Tsuruoka is delicious," opine many of the researchers at the Science Park. Especially famous nationwide is *dadacha-mame*, a species of soybean grown only in Tsuruoka City.

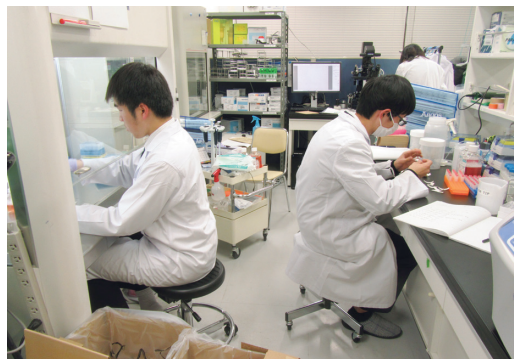
is the only place in Japan to have been registered as a UNESCO Creative City of Gastronomy. However, it has also grappled in recent times with a significant outflow of people leaving for bigger cities, a situation that has created an urgent need to reinvigorate the local economy. With that in mind, Tsuruoka City set about building a sustainable place to live by taking a long-term approach and investing heavily in academic fields. Based on the idea of sprouting new industries from the city, as well as fostering talent in future generations, it started building the Tsuruoka Science Park back in 1999 as a hub for enterprises and research institutions.

One of the earliest organizations attracted to the Science Park was the Institute for Advanced Biosciences



Left: Scientists from all over the world gather together in the Science Park, helping to develop young talent by hiring local high school students for roles such as research assistants.

Right: The pride of IAB, the world's largest group of metabolome analyzers. Metabolome is a general term for metabolites (substances used in metabolism) produced in the living body. IAB aims to elucidate biological phenomena using metabolic data.



(IAB), established by Keio University, which, since its foundation in 1858 in Tokyo, has been one of the most prestigious universities in Japan. The research institute takes advantage of cutting-edge biotechnologies to comprehensively measure and analyze biological data, performing pioneering research on new life sciences driven by big data. In particular, IAB is the home of the world's largest metabolome analyzer, which quickly and simultaneously examines hundreds of metabolites produced in the living body. The director general of IAB, Professor TOMITA Masaru, explains, "Technology does not move forward unless you do something different from what others are already doing. That's why 'zero points' are awarded for ordinary work at the IAB. This principle has led the institute to continuously give birth to a string of unique companies."

One of the bio-venture companies that originated from the IAB and that is based in the Science Park is Metabologenomics, Inc. The firm, which seeks to build a "zero disease" society, is researching people's stools (excrement). As the stool contains the genes of gut microbiota and metabolites, analysis of stool samples and evaluation of the intestinal environment may lead to a new kind of health care, which, in accordance with the gut environment of each individual,

can provide stratified treatment and disease prevention. The company's president and CEO, Dr. FUKUDA Shinji, remarks, "We are grateful to be able to carry out R&D in such a rich and diverse place. Creating the world's leading industries here and producing definite achievements would be our way to return the favor to Tsuruoka City."

In 2018, a new hotel and an indoor playground for children were opened in the park to create attractive spots within the city where local people can interact. Making that happen was Yamagata Design Co., Ltd., another venture company emerging from the Science Park. The firm is involved in a range of projects based on the conviction that anyone—including those from the rest of Japan and elsewhere—can

rejuvenate the region by laying down roots and building a place to live with their own hands.

The Tsuruoka Science Park continues to grow today, bringing abundant economic benefits to the region with more jobs, developments in human resources, and an increase in people who are continuously involved in the area in various ways, including through research, business, and tourism. The park also brings with it a change in people's perceptions, encouraging greater interest in the sciences and pride in the local community, fostering the very people who will be responsible for the city in years to come. Look forward to a brilliant future for Tsuruoka City, where serene rice paddies and cutting-edge biotech sit side-by-side. ✿

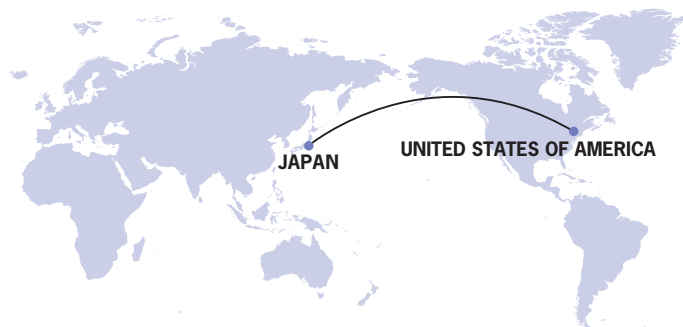


The Shonai Hotel Suiden Terrasse, built from wood, was designed by the prominent Japanese architect BAN Shigeru. *Suiden* means paddy, or rice field. The hotel, built to look as if it is floating amidst rice paddies, is a new attraction that adds to the appeal of Tsuruoka City.

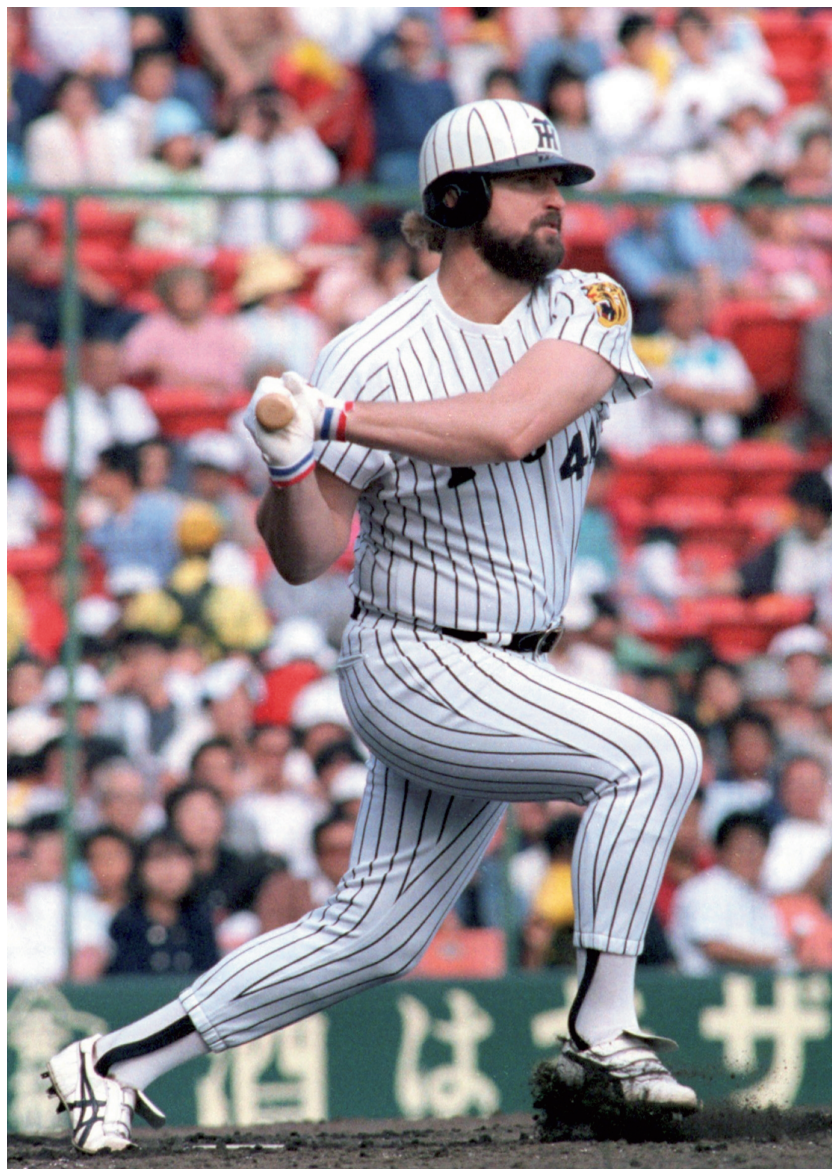


# Randy Bass—The Legendary American Slugger in Japan

Randy Bass, an American baseball player from Oklahoma, became a legend of Japanese baseball two years after first arriving in 1983. What was the secret behind his success?



Randy Bass at the plate at Koshien Stadium, the home of the Hanshin Tigers, in 1987.



To Randy Bass, who had played professional baseball as an infielder for 11 years in the United States, Japan was an unfamiliar country when he first came here. Even so, he said that his transition to the world of professional Japanese baseball “was the best decision [he] ever made.” That decision was, at the same time, one that would produce a legendary American slugger who is still idolized in Japan today.

Bass joined the Hanshin Tigers, one of the most popular professional Japanese baseball clubs, based in Nishinomiya, Hyogo Prefecture, in 1983. Two years later, he posted a .350 batting average, bashed 54 home runs, and drove in 134 RBIs to win the Triple Crown, leading the Tigers to their first (and so far

## Randy Bass

Born in Oklahoma in 1954. A sports enthusiast since he began playing baseball at a young age. Drafted by the Minnesota Twins in 1972. Later played for other MLB clubs, including the Kansas City Royals and Texas Rangers, before coming to Japan in 1983, where he joined the Hanshin Tigers. With a powerful swing and excellent bat control, his success at the plate helped lead the Tigers to their first Japan Series championship in 1985. After leaving the Tigers and returning to America in 1988, Bass ran a farm in Oklahoma. In 2004, he began a 15-year stint as a Democratic state senator, which ended last year.

## Randy Bass, Nippon Professional Baseball Stats

YEAR	GAMES	AT-BAT	HITS	HOME RUNS	AVERAGE
1983	113	420	107	35	.288
1984	104	407	116	27	.326
1985	126	570	174	54	.350
1986	126	541	176	47	.389
1987	123	518	145	37	.320
1988	22	94	25	2	.321

■ NPB record

■ Led Central League

Kobe, where Bass lived, is a port city with an international flair.



Kobe is home to numerous restaurants serving world-famous Kobe beef.

only) Japan Series championship in franchise history. Bass would go on to take the Triple Crown again the next year, when he blasted home runs in seven straight games, and his .389 batting average (in 1986) set a single-season record in Japanese baseball that still stands today.

Despite those feats, his career in Japanese baseball got off to a rocky start, as he recorded no hits in his first 15 at-bats. Adapting to the Japanese style of baseball was a struggle, as Japanese pitchers would throw a breaking ball (a pitch that does not travel straight) in counts when an American pitcher would typically hurl a fastball (power pitching). Bass said, “Getting used to that... took about a half season for me.” He was a left-handed power hitter who would generally pull the ball to right field, but he had a hard time hitting the opposite way—an approach better suited to hitting breaking balls. Nevertheless, with a dedicated effort from the coaches teaching him, he gradually overcame that obstacle. For that, he is grateful, saying: “I became a dangerous hitter then. I owe all that to the Japanese coaching staff.”

The setting where Randy Bass lived, in Kobe, Hyogo Prefecture, also influenced his play. Enclosed by the sea and mountains, the city has long prospered as an international trade hub, with a large population of foreign-born residents. It also has a rich culinary culture, which means

that diners can find whatever they are looking for. Bass took a particular liking to ramen and *teppanyaki* (cooking on an iron griddle). He “fell in love” with noodle dishes of many flavors, including those with soy sauce or *miso* broth. His regular restaurant, which served *teppanyaki* of Kobe beef, shrimp, and chicken, prepared right at the table, was the “greatest place ever,” in his words. Kobe also has international schools where children can learn in English. Bass remembers that “it was just like being in Oklahoma.”

He easily got along with his Hanshin Tigers teammates by absorbing Japanese culture. In between practices, Bass took an interest in playing *shogi*, a boardgame similar to chess, which was popular among his fellow ballplayers at the time. The best *shogi* player on the team taught Bass the rules and strategy. *Shogi* was played nearly every day between practices, and during that time, Bass eventually became good enough to defeat some of his Japanese teammates. “They didn’t like to have an American beat them,” he says, with a good-humored smile.

Bass was also encouraged by the passionate way Japanese fans cheer on their teams, which is completely unlike that of American crowds. When it is time to play ball at the



Fans send colorful balloons flying into the air at Koshien Stadium to cheer on the ballplayers.

Tigers’ home at Koshien Stadium, music from trumpets and drums kicks up and the crowd breaks out in unison, singing songs to encourage their beloved team. As Bass recalls, he always responded well to the fans’ support. “The fans were outstanding. Good or bad, it didn’t matter, they were there.”

Until he left the Tigers in 1988, Bass, supported by the people around him and the city where he lived, was a dynamic hitter who mesmerized his fans. Even today, more than 30 years later, many still have vivid memories of the slugger. ✱



Long after hanging up their spikes, former Hanshin Tigers teammates still get together.



# A Brazilian Woman Who Inspires the Community in Japan

“By using my Japanese, I want to help Brazilians in Japan get by.” With that simple idea, a Japanese-Brazilian woman is forging close connections with local people, making every effort to help her compatriots living in Japan.

**M**arianne Haruko Shimada Fernandes works as a Coordinator for International Relations (CIR) for the JET Programme in Tokoname City, Aichi Prefecture. A third-generation Brazilian of Japanese descent, Shimada had lived her life in both Brazil and Japan since her early childhood. As she got older, Shimada became an elementary school teacher in São Paulo. However, she was struck with the thought that “I can speak Japanese, so I shouldn’t waste it.” Since then, while looking for a job where she could use her Japanese to benefit others, she stumbled upon the JET Programme.

Located in the center of Japan, Aichi Prefecture is one of the country’s major economic areas. In its western part lies Tokoname City, home to the airline hub of Chubu Centrair International Airport. The city has also long been associated with the production of ceramics, and even today retains its historical landscape. Partly for that reason as well, Shimada became fascinated with the city.

Her main role in Tokoname is to support children from Brazil who attend elementary and junior high schools in the city. She spends most of her work hours at school, keeping up to date on school matters,



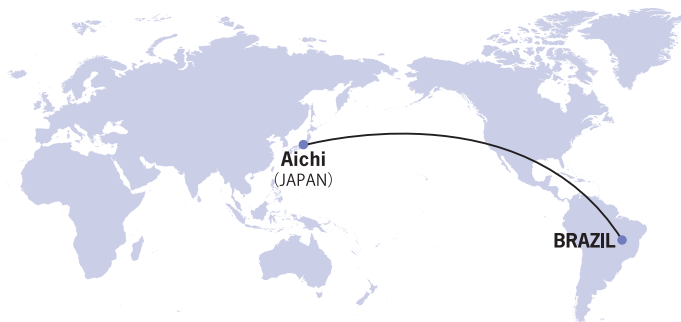
Her friendly personality and affectionate support give children the encouragement they need.

teaching the students Japanese, or counseling them about their school life. The children, many of whom are first-time residents in Japan, have set foot in an unfamiliar place and are faced with many language barriers, but Shimada aims to reassure them with her kind attitude. “I think it is important to give them a place to belong to. Some junior high school girls who were worried about truancy started coming back to school after I suggested that they study together.”

As well as teaching and counseling, Shimada keeps busy as an interpreter between the students’ parents and school when needed, and gives lectures about international understanding at junior high



Chubu Centrair International Airport opened in 2005. Because of its airplane theme park and works of art on display, it draws many tourists.



## Marianne Haruko Shimada Fernandes

Born in São Paulo, Brazil. Third-generation Brazilian of Japanese descent. Also lived in Gunma and Shimane prefectures at a young age due to her father's work. Spent time in Brazil from the age of 14, and after graduating from university, became an elementary school teacher in São Paulo. Assigned to Tokoname City, Aichi Prefecture, in 2018 as a CIR on the JET Programme.

"I love Tokoname because it's such an easygoing place," says Shimada. A lover of history, she was happy to be sent to Aichi Prefecture because of its rich history and many castles.

schools. As an employee of the city, she also uses social media, sending out information in Portuguese and answering questions directly from the Brazilians living in the area. For those who cannot understand Japanese well, she is often their only hope.

Something that Shimada wants to focus more attention on is disaster prevention. The Japanese-Brazilian says that she would like



Tokoname City is famous for its traditional pottery known as Tokoname-ware. Since modern times, it has become one of the nation's leading producers of ceramic pipes and tiles.

to help both the local government and foreigners living in the area by giving assistance in times of disaster. Shimada also hopes to stay in Japan even after her job as a CIR comes to an end. "I really love children, so I would like to do some kind of work connected with them. While there are many Brazilians living in Japan, I think that I can do much more to

deepen our mutual understanding," she comments. Behind her bright, cheery smile is someone who maintains a strong desire to help people. In that way, she has forged close connections with the people of Tokoname City. We can expect her to expand her role in the future as a bridge between Japan and Brazil.

✧

## About the Japan Exchange and Teaching (JET) Programme

The JET Programme began in 1987 with the goal of promoting grassroots international exchange between Japan and other nations, and is now one of the world's largest international exchange programs. In 2019, the JET Programme welcomed 5,761 participants, and there are currently more than 70,000 alumni from 75 countries living in all parts of the world.

The JET Programme official website <http://jetprogramme.org/en/>





# We Are *Tomodachi*

Autumn 2020

Published by



JAPAN GOV  
THE GOVERNMENT OF JAPAN

Edited by

Public Relations Office, Cabinet Office  
and  
Office of Global Communications, Cabinet Secretariat  
1-6-1 Nagatacho, Chiyoda-ku, Tokyo  
100-8914, Japan

Available in electronic format.  
<https://www.japan.go.jp/tomodachi>

eBooks 

We would be delighted to have your feedback.  
Please send us your comments.  
[https://www.kantei.go.jp/foreign/forms/comment\\_ssl.html](https://www.kantei.go.jp/foreign/forms/comment_ssl.html)

## Links to the websites of ministries

---

Cabinet Office <https://www.cao.go.jp/index-e.html>  
Ministry of Agriculture, Forestry and Fisheries <https://www.maff.go.jp/e/>  
Ministry of Defense <https://www.mod.go.jp/e/>  
Ministry of Economy, Trade and Industry <https://www.meti.go.jp/english/>  
Ministry of Education, Culture, Sports, Science and Technology <https://www.mext.go.jp/en/>  
Ministry of the Environment <https://www.env.go.jp/en/>  
Ministry of Finance <https://www.mof.go.jp/english/index.htm>  
Ministry of Foreign Affairs <https://www.mofa.go.jp>  
Ministry of Health, Labour and Welfare <https://www.mhlw.go.jp/english/>  
Ministry of Internal Affairs and Communications <http://www.soumu.go.jp/english/index.html>  
Ministry of Justice <http://www.moj.go.jp/EN/index.html>  
Ministry of Land, Infrastructure, Transport and Tourism <https://www.mlit.go.jp/en/>  
Reconstruction Agency <https://www.reconstruction.go.jp/english/>  
Nuclear Regulation Authority <https://www.nsr.go.jp/english/>

# JAPAN LIBRARY

## Acclaimed Japanese books in translation

# 2020

JAPAN LIBRARY is a collection of specially selected Japanese works in English, providing a broad range of titles from the vast canon of nonfiction—politics, foreign policy, social sciences, culture, philosophy, science and technology, and more. We strive to provide the deft translations and worldwide distribution needed to make the best of these works more accessible to a wider audience.

Most titles in JAPAN LIBRARY can be purchased in either hardcover or eBook form. In addition, all titles are available at close to 1,000 university and public libraries worldwide.

We sincerely hope you make JAPAN LIBRARY a part of your library.



### AVAILABILITY

**Japan:** Available at most major bookstores in Japan (including university and airport bookstores)

**Worldwide:** KINOKUNIYA BOOK STORES, HAKUBUNDO, JP BOOKS, ASAHIYA BOOKSTORE Hong Kong SOGO

**eBook:** Amazon Kindle, Apple Books, Rakuten Kobo **Libraries:** EBSCO, Rakuten OverDrive



For more information please visit <https://japanlibrary.jp/c.or.jp> ✉ [japanlibrary@jp/c.or.jp](mailto:japanlibrary@jp/c.or.jp) 🐦 [@\\_JapanLibrary\\_](https://twitter.com/_JapanLibrary_)





**Japan.** Sharing tomorrow.

# *We Are Tomodachi*

## Autumn 2020

<https://www.japan.go.jp/tomodachi>



**JAPAN GOV**  
THE GOVERNMENT OF JAPAN