

We Are *Tomodachi*

Spring 2018



Prime Minister Shinzo Abe and his wife Akie at the Sugihara House museum in Lithuania, commemorating Chiune Sugihara, the WWII-era Japanese diplomat who issued "Visas of Life" for Jewish refugees.

Feature:
Japan's Passion for
Food Excellence

"Walk in U.S.,
Talk on Japan"

The Origin of Japan's Modernization:
Reviewing the Significance of
the Meiji Restoration after 150 Years



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



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"We Are *Tomodachi*" is a magazine published with the aim of further deepening people's understanding of the initiatives of the Government of Japan and the charms of Japan. *Tomodachi* means "friend" in Japanese, and the magazine's title expresses that Japan is a friend of the countries of the world—one that will cooperate and grow together with them.

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Japan's Passion for Food Excellence

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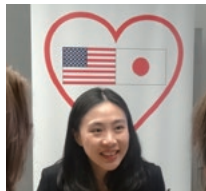
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Cover

Prime Minister Shinzo Abe visits the Sugihara House museum in Kaunas, Lithuania. The museum occupies the city's restored former Japanese consulate and commemorates the actions of the late Japanese Consul Chiune Sugihara (seen in the framed photograph on the left side of the desk), who issued "Visas of Life" to Jewish refugees fleeing Nazi persecution. The museum's purpose is to remind visitors of the importance of peace and humanity.

Note: U.S. dollar equivalents for Japanese yen amounts in this issue are calculated at 108 yen to the dollar, roughly the rate at the time of publication.

This
is
Japan

Cherry Blossoms Mark the Coming of Spring

Japan's "cherry blossom front" shows when the cherry trees across the country will bloom. The front starts in the south in late March and moves northward as the season progresses. The long Japanese archipelago, from south to north, is gradually steeped in pink.



Tokyo

Cherry trees usher in a season of new beginnings

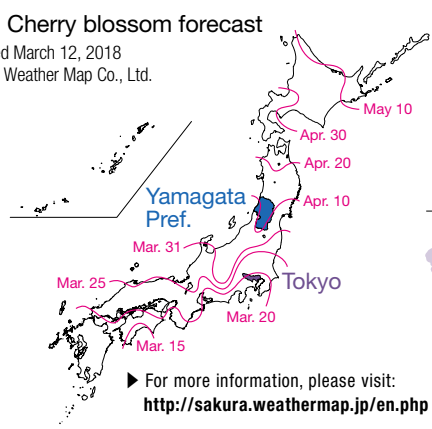
Even the streets of metropolitan Tokyo offer many beautiful spots for cherry blossom viewing. In April, the sight of newly-minted first graders holding their parents' hands as they walk beneath the cherry trees in full bloom on their way to their school entrance ceremonies is charming to behold.

Photo: Along the Shakujii River next to Takinogawa-Momiji Elementary School in Kita City. ©The Asahi Shimbun Company.

2018 Cherry blossom forecast

Released March 12, 2018

Source: Weather Map Co., Ltd.



Yamagata City

► For more information, please visit:
<http://yamagatakanko.com.e.db.hp.transer.com>



Kita City

► For more information, please visit:
<http://www.kanko.city.kita.tokyo.jp/wp/wp-content/themes/kitatokyo/images/guidemap/mappdf/gaikokuzin-en.pdf>



1,500 cherry trees celebrate spring in the north

Yamagata Castle's Kajo Park is a renowned spot for viewing its approximately 1,500 cherry trees blooming in gorgeous profusion. The park bustles with visitors from across the country and abroad who eagerly welcome spring's arrival to northern Japan. The cherry trees lit up at night are a magical sight.



| My Love for Japanese Food & Service

East Side Sushi Director Talks about Japanese Food Culture



Juana (Diana Elizabeth Torres as a Mexican-American single mother) and Aki (Yutaka Takeuchi as a sushi chef) in the film *East Side Sushi*. Juana's watch can be seen. ©Blue Sun Pictures

"I never thought my film would bring me 14 awards and a trip to Japan," laughs Anthony Lucero, the director of the film *East Side Sushi*, a film about a Mexican-American single mother who encounters cultural and traditional barriers as she strives to realize her dream of becoming a sushi chef. In 2017, Lucero traveled along the Japanese archipelago from north (Sapporo) to south (Okinawa City) upon the invitation of the U.S. Embassy and Consulates in Japan, talking about his film to Japanese audiences.

Looking back on his Japan tour, Lucero says he found inspiration everywhere he went. After sampling a wide range of local specialties and meeting people from all walks of life to discover still more captivating aspects of Japan, he now claims, "Had I known all this before I filmed the movie, I might have revised my script!"

Lucero reveals that during his tour around Japan, some members of his audience remarked it was peculiar for the heroine of his film to wear a watch while making sushi. In fact, the watch had been a necessary technical addition to

enable a professional chef to be used as a "hand double" during close-ups of the sushi preparation. "When I went around to local sushi restaurants in Japan, I learned that no sushi master would ever wear a watch during either the preparation or the serving of sushi. I asked the reason, and the answer was 'In order to present your cuisine to the gods, you must be as pure as possible.' Here, 'the gods' refers to the customers. In Japan, everything seems to be permeated by a certain degree of spiritualism."

Lucero was intrigued to find how seriously the Japanese regard their meals, whether preparing, serving, or eating them. "The first thing to know about food in Japan is that it is very difficult to find a bad meal anywhere. Japanese people are very committed to their work and to customer service, and they take pride in what they do. Whatever task they do, they aim for perfection. In addition, Japanese customers are very discerning when it comes to their food. That is why Tokyo has the most Michelin-starred restaurants in the world."

Lucero continued, "What I found most fascinating about



After discussing *East Side Sushi* with Chukyo University Senior High School students in Nagoya, at an event co-hosted with the U.S. Embassy.



Giving a talk at the American Center Japan in Tokyo after screening *East Side Sushi*, hosted by the U.S. Embassy.

Japan is that even average consumers pay considerable attention to where their food originates from, whether it be meat, fish, vegetables, rice, or anything else. If it's fish, they want to know where in Japan it was sourced from. If it's beef, they again want to know the region, because they know the differences between beef from Kobe, Matsusaka, and Sendai. They also put tremendous emphasis on eating seasonal ingredients. In the U.S., consumers generally don't pay that much attention to where the food originates from, and when they order a meal, I rarely see people discussing which fish or vegetables are at the peak of the season. In the U.S. people are more concerned about whether or not something is organic. I was intrigued to see how Japanese select their food in the same way Americans select wine based on the year, region, and type of grape."

One of Lucero's favorite foods in Japan was yakitori, chicken dipped in or brushed with sauce and then hand-grilled over charcoal. He couldn't put his finger on the secret to its remarkable flavor until he realized that many restaurants in Japan use a specific kind of charcoal, called *bincho-tan* charcoal, to give the yakitori a distinctive, more complex taste. "In the U.S., it is difficult to find restaurants that hand-grill their food over charcoal. But in Japan many restaurants post signs saying that they



Bumping into locals at a yakitori restaurant in Kyoto. The secret ingredient was the *bincho-tan* charcoal.

use this special charcoal, and again consumers are very aware of how that affects the taste."

Lucero also noticed that the Japanese approach to food was very similar to how he had made *East Side Sushi*. "Western food is about adding spices and seasonings in the right combinations to make a delicious dish, just like how many of the movies I had worked on previously incorporated lots of visual effects. But Japanese food tries to bring out the ingredients' natural flavor with a minimum of spices, like using no visual effects in a movie and instead relying on the strength of the story and the acting to pull the viewer along. I could feel the chefs' pursuit of pureness in Japanese cuisine and I feel I too was trying to capture a pureness in my film," Lucero explained.

One thing that left a deep impression on Lucero is that some Japanese people who watched his movie commented he had a Japanese soul. "At first I wasn't quite sure what they meant, but after traveling around Japan, I came to appreciate the spirit of Japanese craftsmanship much more fully. Japanese craftsmen—including those pursuing the craft of sushi making—put their soul into their work to the point that their work becomes art. I put my soul into my film, and I am glad that my passion transcends across borders and people."

Lucero now lives in Los Angeles and is searching for an opportunity to use these and other areas of inspiration in his life to create his next film.



Anthony Lucero

Worked as a visual effects engineer for George Lucas' Industrial Light and Magic on *Star Wars: Episodes I & II*, *Pirates of the Caribbean*, *Iron Man*, *The Mummy*, *Harry Potter and the Prisoner of Azkaban*, etc. Resigned his engineering position and went on to make the film *East Side Sushi*, which earned 14 awards and led to his trip to Japan. ©Blue Sun Pictures

Cultivate the Seas!

World's First Fully Farm-Raised Bluefin Tuna



Kindai University began exporting “Kindai Tuna,” its fully farm-raised bluefin tuna, together with Toyota Tsusho Corporation in 2017. These exports are planned to reach 80–100 tons per year (estimated based on one tuna weighing 40–50 kg (88–110 lb.)) by 2020, focused primarily on Southeast Asia.

Called the “diamond of the sea,” bluefin tuna has long been popular as a high-end *neta* (topping) for sushi. However, with the growing popularity of fish-based cuisine around the world, excessive harvesting of tuna by many fishing nations has drawn attention from the international community. In particular, overfishing of bluefin tuna in the Pacific has led to serious concerns about the depletion of bluefin tuna stocks, prompting the International Union for Conservation of Nature (IUCN) to add Pacific bluefin tuna to its Red List of Threatened Species in 2014. Furthermore, there have been active movements calling for the regulation of trade in Pacific bluefin tuna by designating it as an endangered species under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), also known as the Washington Convention. Amid these

recent developments, a new aquaculture technique developed at the Aquaculture Research Institute of Kindai University in Japan is garnering attention for successfully producing the world’s first fully farm-raised bluefin tuna.

“We began our research on cultivating fully farm-raised bluefin tuna in 1970 after receiving funding from the government’s Fisheries Agency to conduct research on the cultivation of aquatic resources,” says Shukei Masuma, general director of the Aquaculture Research Institute of Kindai University. Masuma goes on to explain, “Although tuna and other marine resources were still plentiful at the time, researchers were already anticipating that overfishing of aquatic resources would occur in the future as the world’s human population continued to grow and various countries achieved economic development. Meanwhile, Japan understood the importance of advocating the idea among



The "Kindai University Aquaculture Research Institute" restaurant Osaka branch. Its mission is "putting 'learning for the real world' into practice for future research."

the international community that there was a need for maritime nations to act responsibly and not only *harvest* marine resources, but also *protect* these resources through aquaculture. It was amid this backdrop that the Fisheries Agency began approaching outside research institutes and funding research toward developing techniques of propagating and cultivating tuna species, turning to institutes that had the facilities, equipment and proven experience necessary to handle such research."

Nobody at the time, though, imagined that cultivating fully farm-raised bluefin tuna would prove so difficult as to require 32 years of research before the first success. Normally, the cultivation of farm-raised tuna involves capturing fry (juveniles) weighing between 100 and 500 grams (3.5 to 17.6 oz.) from the sea and raising them in net pens in the sea for three or four years until they weigh about 50 or 60 kilograms (110 to 132 lb.). Unfortunately, this technique necessitates capturing large numbers of wild fry, making it an ineffective measure for preserving aquatic resources. Thus, the key point lies in achieving the production of fully farm-raised tuna without relying on wild fry. Producing fully farm-raised tuna consists of raising wild fry into adult fish (farm-raised tuna), having these farm-raised tuna lay eggs, artificially hatching these eggs and then once again raising the resulting spawn into adult fish (fully farm-raised tuna). While the process may sound fairly simple, in fact many research institutes, with support from the national and local governments, tried and ultimately failed to accomplish the cultivation of tuna over the course of 32 years. In the end, Kindai University, the only institution that continued its research for 32 years, succeeded in producing the world's first fully farm-raised Pacific bluefin tuna in June of 2002.

When asked about the secret to Kindai University's success in cultivating fully farm-raised tuna, Masuma explains, "At first, we received funding from the national and local governments to develop aquaculture techniques, just like other research institutes. However, we actually put into practice the aquaculture techniques that we had developed and perfected through our research, and sold the cultivated yellowtail, red sea bream and other fish to wholesale markets. We then applied the proceeds from these sales to our research on bluefin tuna aquaculture so, as a matter of fact, we were able to continue our research even when official funding dried up." Upon further reflection, Masuma adds, "In the end, what really supported us and kept us going throughout all the repeated failures was the words of the founding creed of Kindai University's Aquaculture Research Institute: 'Cultivate the seas!'"

In 2013, the Aquaculture Research Institute of Kindai University opened restaurants in Osaka and Tokyo serving their farm-raised fish. The name of the restaurants, fittingly, is "Kindai University Aquaculture Research Institute." The purpose of these restaurants is not merely to serve fully farm-raised bluefin tuna and other fruits of their research as dishes, but also to obtain feedback from customers on taste, price levels and so forth to use in furthering their research. The fact that their restaurant business is also turning a profit is a testament to the quality and appeal of their cultivated fish.

Masuma considers Kindai University's research on fully farm-raised bluefin tuna to be a mission of great importance, saying, "Amid growing concerns over the depletion of aquatic resources and marine pollution, I hope to deliver safe and delicious farm-raised fish from Japan to dinner tables around the world."



Dr. Shukei Masuma

Graduate of Hiroshima University's Faculty of Fisheries and Animal Sciences. Received his doctorate in agriculture from Kyushu University and spent many years studying tuna at the Japan Sea-Farming Association (currently the Japan Fisheries Research and Education Agency, a National Research and Development Agency). Since 2012 he has served as a professor at Kindai University's Aquaculture Research Institute. In 2016 he also became the institute's general director.

Strawberry Paradise Japan



From January 2018, strawberries harvested the same morning for sale at a shop operated by a Japan Airlines Group company in Terminal 2 of Narita International Airport have become very popular. Strawberries are available until early May, and other fruits in season are sold throughout the year.

With 159,000 tons produced annually and 148 varieties registered, strawberries are one of Japan's leading fruits. And although they may be expensive, strawberry-lovers abroad hold Japanese strawberries in high regard for their outstanding flavor. Exports of Japanese strawberries, primarily to markets in Asia such as Hong Kong, have reached 526 tons (valued at JPY 1.15 billion (USD 10.65 million)) annually, and the volume is increasing. Greenhouse cultivation, one factor in this growth, allows producers to set the delivery time so that delicious berries can be enjoyed even in December, and not only in the April-May strawberry season.

Strawberries gained popularity among Japanese households after greenhouse cultivation became possible in the 1960s. However, until the late 1990s, few varieties existed and two main ones, "Nyoho" and "Toyonoka" strawberries, dominated the market. Due to their rather sour taste, people usually ate these berries with milk and sugar or condensed milk. This changed after the Tochigi



Greenhouse at the Kumamoto Prefectural Agricultural Research Center, where work on the cultivation method of "Yubeni" strawberries continues. Conditions are changed little by little in the effort to produce a harvest of flavorful berries.

prefectural government initiated the breeding of its namesake "Tochiotome" strawberry. Other prefectures soon began competing to come up with their own local

varieties, with the result being the sweet, juicy strawberry brands that are produced around Japan today.

Kazuhiro Tajiri of the Kumamoto Prefectural Agricultural Research Center describes one of the challenges in developing a new brand. “Flavorful strawberries, measured in the pointed tip, have a balance of a 14–15 degree sugar content (brix) and 0.6–0.7% acidity. However, a combination of factors including firmness of the berry determines flavor, so mechanically determined data alone does not tell the whole story. In developing new varieties, we have to eat and evaluate thousands of strawberries one by one. This continuous tasting irritates the stomach, so we must take stomach medicine as we work.”

Strawberry breeders face other challenges in their quest to develop delicious, marketable berries. A breed may receive a positive evaluation at the research center, but prove vulnerable to unexpected diseases in cultivation trials by farmers. Tatsumi Koba of the Kumamoto Prefectural Agricultural Research Center tells of the case of “Hinoshizuku,” a strawberry developed in 2003. “Although it received a very positive response for its flavor, its weakness to disease made it difficult to grow and control the delivery timing. To develop one breed takes about 10 years, and working to address these issues, we came out with the ‘Yubeni’ strawberry in 2015. Work to improve this breed still continues.”

Breed improvement is not the only goal in the development

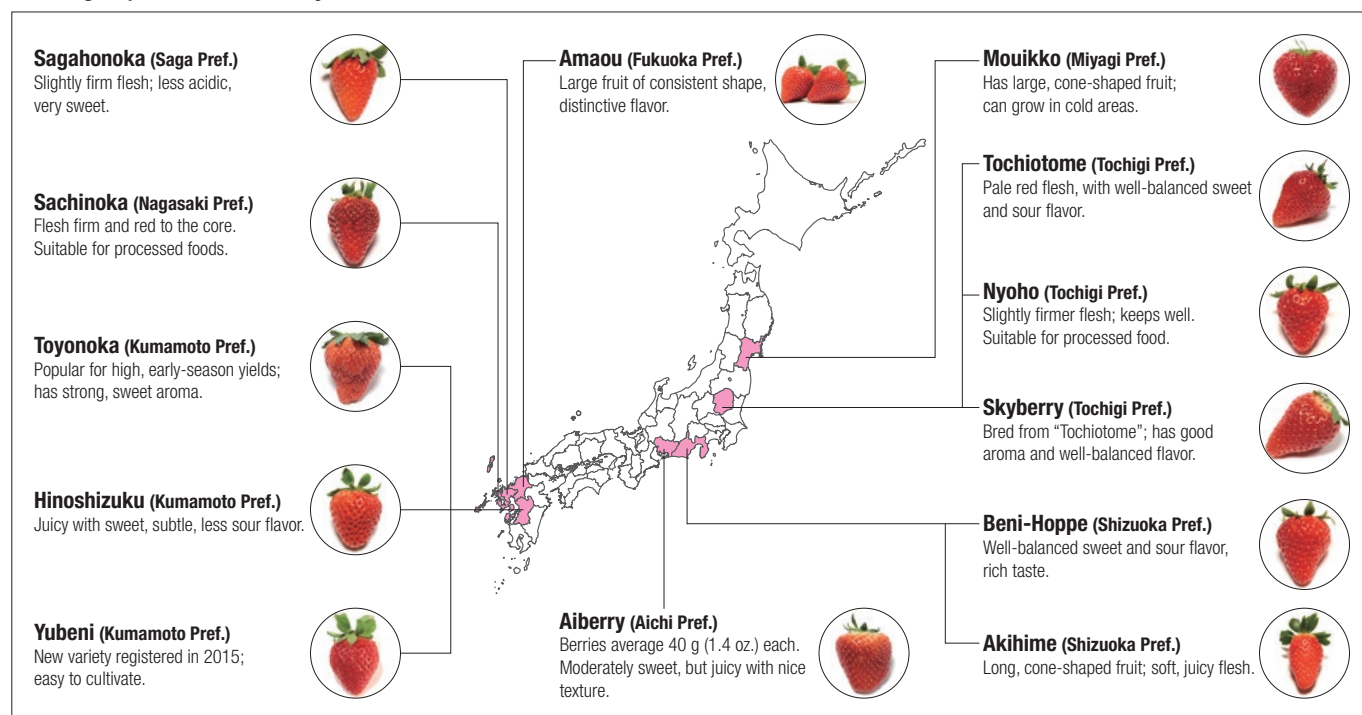


Kazuhiro Tajiri (left) and Tatsumi Koba (right) at the Kumamoto Prefectural Agricultural Research Center distribute cultivation method manuals to farmers that have purchased seedlings.

of strawberries; simply growing a breed may lead to an inconsistent quality of flavor. The cultivation method must also be researched for each breed to reach its full potential. Details like exposure to sunlight, proper humidity and temperature, and how many fruits each branch should bear must be taken into consideration. Only breeds producing strawberries that meet exacting standards for flavor can be marketed in Japan and overseas.

Have you tried Japanese strawberries? Please do! One taste will change your image of what a strawberry can be.

Leading Japanese strawberry brands



Prime Minister in Action

Prime Minister Shinzo Abe continues to expand his “Diplomacy That Takes a Panoramic Perspective of the World Map.” In January 2018, he visited the three Baltic States of Estonia, Latvia, and Lithuania as well as Bulgaria, Serbia, and Romania as the first Japanese prime minister to visit these countries. His vigorous summit diplomacy also included meeting with numerous heads of state visiting Japan.



With H.E. Mrs. Kersti Kaljulaid, President of the Republic of Estonia, in Tallinn, Republic of Estonia. (January 2018)



With H.E. Mr. Jüri Ratas, Prime Minister of the Republic of Estonia, in Tallinn, Republic of Estonia. Prime Minister Abe was accompanied by CEOs of Japanese companies who participated in talks to deepen business ties. Similar talks were held in other countries visited. (January 2018)



With H.E. Dr. Dalia Grybauskaitė, President of the Republic of Lithuania, in Vilnius, Republic of Lithuania. (January 2018)



With H.E. Mr. Saulius Skvernelis, Prime Minister of the Republic of Lithuania, in Vilnius, Republic of Lithuania. (January 2018)

Countries and Regions

 Whose leader met the Prime Minister in Japan

 Visited by the Prime Minister

 Whose leader met the Prime Minister while they both were abroad

(Only represents activities featured in the photos of this article)



With H.E. Mr. Rumen Radev, President of the Republic of Bulgaria, in Sofia, Republic of Bulgaria. (January 2018)



With H.E. Mr. Aleksandar Vučić, President of the Republic of Serbia, in Belgrade, Republic of Serbia. (January 2018)



With H.E. Mr. Māris Kučinskis, Prime Minister of the Republic of Latvia, in Riga, Republic of Latvia, laying down flowers at the Freedom Monument. The Freedom Monument is dedicated to the fallen soldiers of the Latvian War of Independence, which followed World War I. (January 2018)



With H.E. Mr. Boyko Borissov, Prime Minister of the Republic of Bulgaria, in Sofia, Republic of Bulgaria. (January 2018)



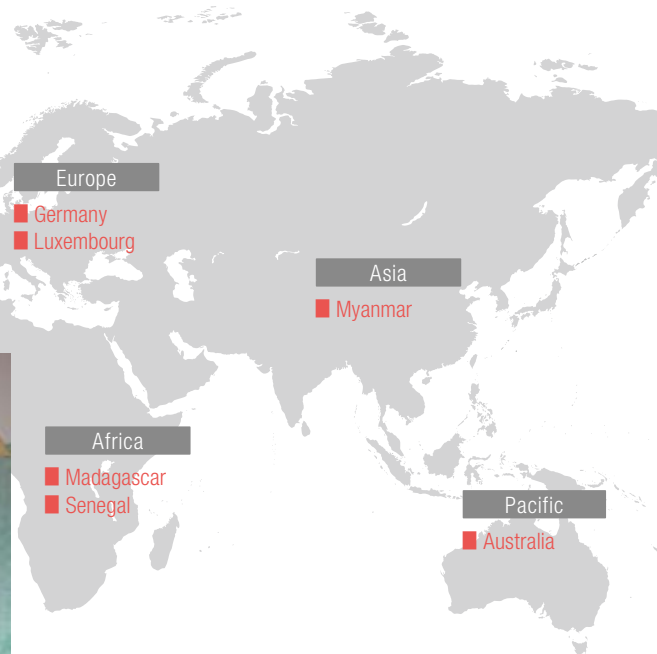
With H.E. Mr. Klaus-Werner Iohannis, President of Romania, in Bucharest, Romania. (January 2018)



With His Royal Highness Grand Duke Henri of Luxembourg at the Prime Minister's Official Residence. A banquet was held afterward. (November 2017)



Hosting the Universal Health Coverage Forum 2017 (UHC Forum 2017), where he gave a speech (See Winter 2018 issue). The forum was attended by several world leaders as well as Dr. Jim Yong Kim, President of the World Bank Group, and leaders in the fields of healthcare and medicine such as World Health Organization Director-General Dr. Tedros Adhanom Ghebreyesus. (December 2017)



With H.E. Mr. Macky Sall, President of the Republic of Senegal, who visited Japan to attend the UHC Forum 2017, at the Japanese Prime Minister's Office. (December 2017)



With H.E. Mr. António Manuel de Oliveira Guterres, Secretary-General of the United Nations, who visited Japan to attend the UHC Forum 2017, at the Japanese Prime Minister's Office. (December 2017)

Countries and Regions

■ Whose leader met the Prime Minister in Japan

■ Visited by the Prime Minister

■ Whose leader met the Prime Minister while they both were abroad

(Only represents activities featured in the photos of this article)

North America

■ United States of America



With H.E. Dr. Frank-Walter Steinmeier, President of the Federal Republic of Germany, at the Japanese Prime Minister's Office. (February 2018)



With H.E. Mr. Htin Kyaw, President of the Republic of the Union of Myanmar, who visited Japan to attend the UHC Forum 2017, at the Japanese Prime Minister's Office. (December 2017)



With H.E. Mr. Rakotoarimanana Hery Martial Rajaonarimampianina, President of the Republic of Madagascar, at the Japanese Prime Minister's Office. (December 2017)



With the Hon. Malcolm Turnbull MP, Prime Minister of the Commonwealth of Australia, inspecting Japan Ground Self-Defense Force Camp Narashino. (January 2018)



With the Honorable Mike Pence, Vice President of the United States of America, at the Japanese Prime Minister's Office. (February 2018)

“Walk in U.S., Talk on Japan”

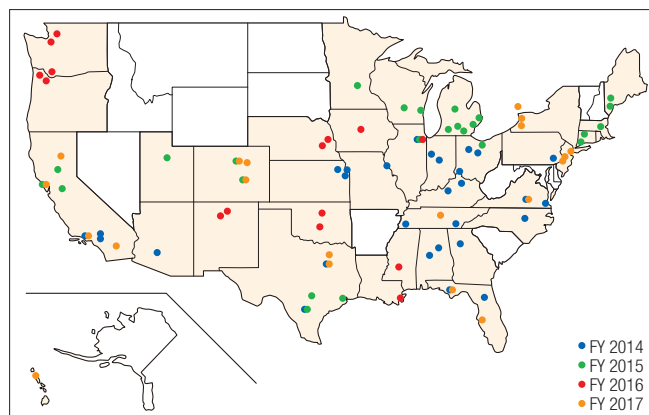


Liu visited Norfolk, Richmond, Nashville, Clarksville, and Honolulu in January 2018 as part of a delegation led by former ambassador to the U.S. Ichiro Fujisaki. The group visited six universities and two high schools, spoke with two governors, and interacted with many other government officials and business people during a week-long trip to the U.S.

From its beginning in 2014, participants in the “Walk in U.S., Talk on Japan” program have highlighted Japan’s attractiveness and appeal to audiences in cities across the United States. The program is rooted in the belief that exchanges between Japanese people and a broad and diverse range of Americans—focused on regional cities where there are fewer opportunities to know and appreciate Japan—can nurture the Japan-U.S. friendship at a grassroots level.

In “Walk in U.S., Talk on Japan,” former Japanese ambassadors or other public figures lead delegations of three or four selected members, and visit local areas throughout the U.S. for grassroots interactions. In meetings with university and high school students, government officials, business people, and others, these delegates share their own stories about Japan as well as what is currently going on in Japanese society.

So far, 69 people from various backgrounds and ranging in age from 18 to 82 have participated in the program. Each of the 20 delegations sent out thus far has “walked and talked” for about one week in what is now a cumulative total of 79 U.S. cities in 35 different states. Meetings with



Total: 20 delegations to 79 cities in 35 states in the U.S. (and 2 cities in Canada)

local students and business people begin with a speech by the delegation leader, followed by speeches of members. The events then continue with lively discussions and a Q&A session with the audience about various topics, ranging from pop culture to national security to the economy.

Dr. Xiaoyan Liu, born in Shanghai, was the first non-Japanese participant in the “Walk in U.S., Talk on Japan”



Members take turns sharing their experience of Japan, following a speech by the head of the delegation. Liu was given the honor of speaking first.



This grassroots exchange program has deepened understanding between Japan and the U.S. on both the national and individual level. "Walk in U.S., Talk on Japan" wants to see the friendly relationships initiated in the course of the program continue into the future.



Dr. Xiaoyan Liu

Researcher at Meiji Institute for Global Affairs, Meiji University (MIGA). Born in Shanghai, China and majored in Japanese at Tongji University. Received a Master of Public Policy from the University of Tokyo in 2007 and worked for the Development Bank of Japan's Research Department. Earned a master's degree in East Asian Studies at Washington University in St. Louis, Missouri in 2011 and a PhD in Chinese Studies at Heidelberg University in Germany. She has been working at MIGA since 2015.

program. After coming to Japan as a student in 2000, she earned a Master of Public Policy degree from the University of Tokyo in 2007. She worked at the Development Bank of Japan's Research Department, and then went to the United States for further study, receiving a master's degree in East Asian Studies from Washington University in St. Louis. Liu went on to earn a PhD in Chinese Studies at Heidelberg University in Germany, after which she moved back to Japan, and she has been working as a researcher in Tokyo since 2015.

Liu explains her motivation for joining "Walk in U.S., Talk on Japan." "I was neither born nor raised in Japan; however, I love this country. I feel that many people overseas have little knowledge about Japan or misunderstand the country and its culture. I applied to this program because I wanted to share what I know of Japan's attractiveness to people in the U.S., especially those who are not familiar with Japan."

Liu's ability to talk both passionately and frankly about her positive experience of Japan and her time spent studying in the U.S. made her a natural choice to become a member of this bridge-building program.

Addressing audiences in Norfolk, Richmond, Nashville, Clarksville and Honolulu, Liu spoke on "Realizing Your Japanese Dream, As I Did." Contrary to the widespread image of Japan, Liu has found Japan anything but inward-looking. "The Japanese warmly welcome exchange students, and provide well-organized support through a system that includes health insurance and possible

scholarships." Students are allowed to work for up to 28 hours per week, enabling them to meet practical needs while engaging with the society. Liu believes that those committed to studying in Japan can find their dreams become reality. She smiles, "Japanese people are quite modest, right? They are too modest to talk about their own merits. I feel that since I am a foreigner, and because I have experience living outside of Japan, I can objectively share with Americans the positive aspects of Japan."

Liu commends Japanese hospitality, saying, "Many foreigners are coming to Japan today, and wherever they go, Japanese are doing their best to please them, even, to give a small example, using hand gestures to help overcome language barriers. Japanese exhibit a spirit of tolerance and kindness toward foreigners and that always reminds me of my favorite Japanese proverb, '*Nasake wa hito no tame narazu* (Kindness does not go unrewarded).'"

Liu encourages other foreigners to follow her path by participating in "Walk in U.S., Talk on Japan." Non-Japanese often have an important perspective on Japan's positive qualities that audiences find fresh and enlightening. As Liu experienced, foreigners in Japan can play a vital role in building bridges, opening channels of communication, and fostering friendships between Japan and the U.S., and with other countries of the world as well.

For more information about "Walk in U.S., Talk on Japan," please visit:
<https://www.japan.go.jp/walkinus/index.html>

Cellular 3D Printer Brings New Hope



Cyfuse's research lab on the campus of the University of Tokyo (providing commercialization support at the University of Tokyo Entrepreneur Plaza). The original basic technology was developed in cooperation with Kyushu University, which also houses a Cyfuse lab.

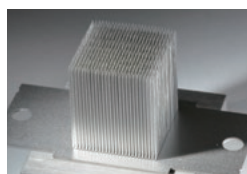
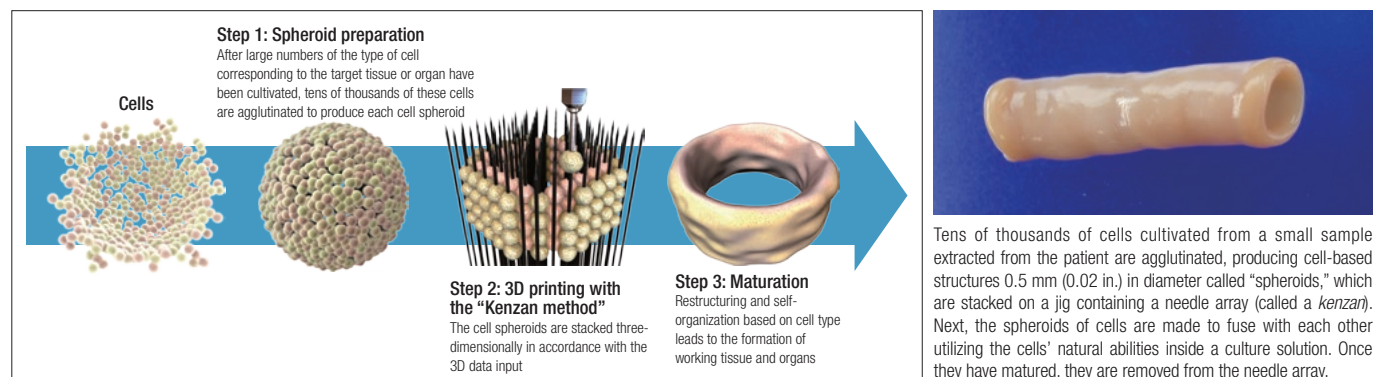
Regenerative medicine uses cells and other materials to restore the function of internal organs and to repair tissue that has been damaged or has ceased working properly. All over the world various research is rapidly moving towards real-world applications, and breakthroughs for further progress are on the horizon. Given these circumstances, the “three-dimensional tissue fabrication technology” developed by Cyfuse Biomedical K.K., a Japanese startup founded in 2010, is garnering much attention.

Until now, the creation of tissue or organs for regenerative medicine has primarily used artificial scaffold materials like gel and collagen, but Cyfuse's technology makes it possible to generate three-dimensional tissue and organs using cells exclusively, without any scaffolds. For example, bones can be created based on cells extracted from a patient's buttocks.

Masahiro Sanjo, Cyfuse Board of Directors member and CFO, explains, “Tissue produced using only cells is also more compatible with the body and has a lower risk of infection. Once regenerative medicine using cellular bone, cartilage, blood vessels, and nerves becomes available, it can be an option that may reduce the stress for patients resulting from the removal or exchanging of artificial components that comes with conventional materials, and therefore greatly increase their quality of life.”

Cyfuse is unique in that it developed its Regenova device, which handles the task of automatically stacking the cells, in collaboration with Shibuya Corporation, a company most renowned for its production of bottling systems. Regenova, also referred to as a “Bio 3D printer,” uses a robot arm to stack the cells, which have been aggregated in small groups called “spheroids,” according

The “Kenzan method,” a platform technology for the three-dimensional stacking of cells



Regenova and an actual *kenzan* needle array. Cell spheroids are picked up and stacked one by one, which would be a truly arduous task for humans. Currently, Regenova is in its third generation, and research to enable production of larger structures and operation at faster speeds continues.



Cyfuse Board of Directors member and CFO Masahiro Sanjo says, “It will take some time for such advanced regenerative medicine and the cell-based products developed with Japanese technology to become a new global standard, but I would like to work step by step towards accomplishing Cyfuse’s dream to ‘Create New Hope from Cells.’”

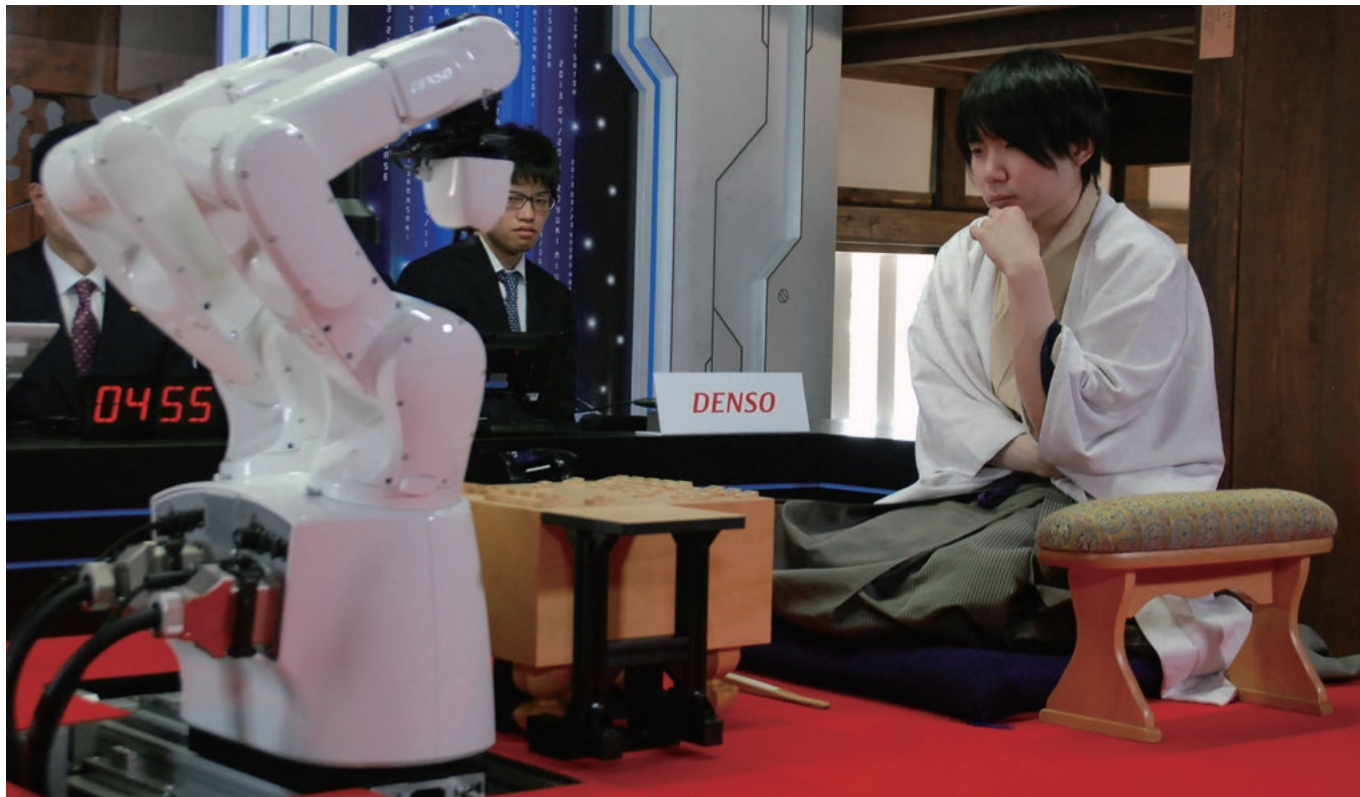
to three-dimensional arrangement parameters that have been set using 3D design software. This cuts production time, which would amount to several dozen hours if researchers constructed the tissue manually, and improves consistency in the quality of structures produced. “Connecting high-level biotech research and engineering and then commercializing this connection is a generally difficult task because of the extent of mutual understanding required. However, many different individuals share Cyfuse’s ideal of ‘contributing to the rapid progress of medicine through the implementation of innovative technology’ and have helped bring about innovations through the fusion of biology and engineering. Since the Regenova system’s launch in 2012, it has spread both domestically and internationally, and research and development regarding its commercialization is accelerating at each of the institutions that have adopted it,” recounts Sanjo.

With Regenova, a variety of cell-based structures can be produced. Cyfuse is currently focusing its research and development on the generation of bones, cartilage, blood vessels, and peripheral nerves, for which there are the most significant unmet needs in medical settings. All of such research is carried out in conjunction with universities, research institutes, and private companies,

and Cyfuse also receives support from governmental sources including national research and development agencies. The production of bones and cartilage has moved to the clinical trial stage, while that of blood vessels and peripheral nerves is still in pre-clinical development. Cyfuse is also involved in the development of liver structures to use as samples in the evaluation of newly developed medication and in the exploration of mechanisms that lead to disease. Expectations for such research in the field of drug discovery support are rising, since the risk of clinical trials involving human subjects will decrease once it becomes possible to conduct trials using liver structures produced only from human cells.

In the future, Cyfuse will continue its efforts to bring current research to market, spread advanced technology, initiate new technology development, and strive to expand its market share through technological innovation and lowering costs. “It is our hope to be able to provide patients with new options that will allow recovery from diseases and injuries that used to be considered impossible,” says Sanjo. “In order for that to happen, we mustn’t withhold our technology, but share it widely with the industry. We will keep working with as many universities, research organizations, and companies as possible to bring patients hope.”

Artificial Intelligence: A Rival for Humans, or a Partner?



Amahiko Sato (right), the current *Meijin* title holder, in a match with shogi AI at the Shogi Denou Tournament, in which professional shogi players play against various kinds of shogi AI.

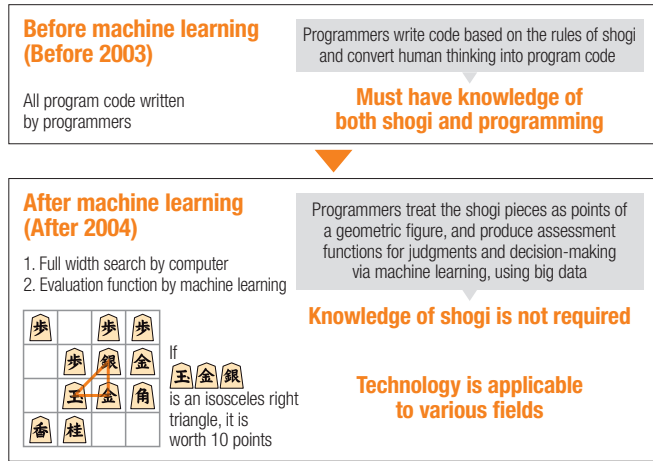
A “technological singularity,” when artificial intelligence, or “AI,” surpasses human intelligence, is coming closer to reality. In 2017, AI software named “Ponanza” that plays shogi—a Japanese game similar to chess—defeated the holder of the *Meijin* title, one of the most prestigious titles in professional shogi, for the first time ever. Because shogi allows players to use captured pieces as their own, the number of potential moves is 10 raised to the power of 100 times more than in chess, making the game substantially more complex.

HEROZ, Inc., founded in 2009 by Takahiro Hayashi and Tomohiro Takahashi, is the AI tech company whose engineers developed the Ponanza software. The company’s online application “Shogi Wars” has a feature by which, at the touch of a button, a player not sure of the best move to make can have the AI select the best possible strategy on his or her behalf for the next five moves. The player can thereby learn new tactics through

the AI software. Currently, over 250,000 shogi matches are played on Shogi Wars daily, and the company has accumulated game data on a total of more than 320 million matches during the five years since the app was first launched. Moreover, even professional shogi players are playing games on Shogi Wars to learn the moves used by Ponanza and other AI shogi software. Hayashi says of this relationship, “AI is not a rival of human beings, but a partner for learning together.”

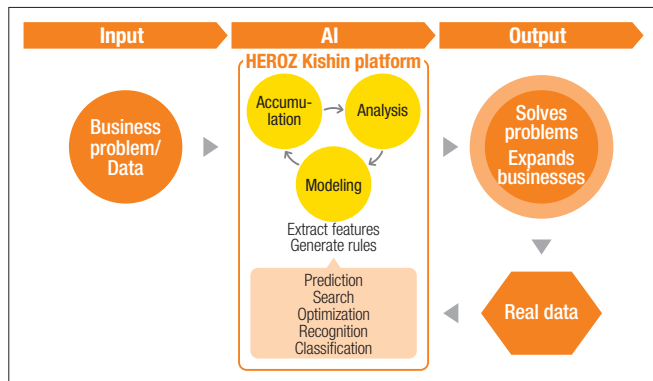
A unique feature of HEROZ is that it develops and provides the AI platform “HEROZ Kishin,” which can be used by various industries, including finance. This platform applies machine learning, including deep learning, accumulated through the development of its AI shogi software to evolve AI-related techniques. For example, together with a stock brokerage firm, it has developed a system for institutional investors that studies past share price and transaction data and forecasts share

Innovation through machine learning



The shogi AI can think of moves outside the range of human thinking. These moves are based on computed evaluation scores which the AI has learned from big data. This method does not rely on shogi's rules, and can be applied to various fields.

HEROZ Kishin platform



HEROZ Kishin solves various types of problems by accumulating real data as big data, and analyzing and modeling it. It also improves the accuracy through continuous learning.

prices several minutes into the future based on the current share price and trading volume. Similarly, in the construction industry, together with a general contractor, the company is now developing an AI system by which the AI studies structural design data of the past as well as design know-how, rules, and the like, and then assists with the structural design process by producing multiple structural design proposals in a short time. The result will be that designers will be able to concentrate on more creative tasks and spend more time creating new design proposals. Takahashi says, "We have a mission of creating services that amaze the world. In light of that, we will contribute to resolving our clients' problems and expanding their operations by making HEROZ Kishin available to all industries, including the finance, construction, automotive, and transport and logistics industries, and push ahead with an AI revolution. We want to foster companies that make use of AI in every aspect of their

operations, to the point that in the future, we'll be saying that necessary infrastructure is electricity, gas, water, and AI."

Nomura Research Institute, Ltd. estimates that over the next decade or two, approximately 49% of Japan's working population will be able to be replaced by AI or robots. However, Hayashi's analysis is that, "Many are under the false impression that people will be deprived of jobs because of the emergence of AI. But what AI does best is tasks that can be represented by numerical data. The expansion of services using AI in the future will lead to an increase in jobs in design and other creative domains in which human beings have always excelled. Looking back at history, the advent of the automobile caused a marked decrease in jobs related to horses and horse-drawn carriages, but the automotive industry and its related industries developed dramatically, to a scale several times larger than what they replaced."

In 2016, Japan positioned AI as one of the technological foundations for bringing about a super-smart society, often referred to in Japan as "Society 5.0." And, with a view to supporting AI research and development, Prime Minister Abe gave instructions for the launch of the Artificial Intelligence Technology Strategy Council, under which industry, academia, and government come together and pursue cooperation in research and development. Hayashi underscores Japan's strong position, saying, "Although AI engineers are in short supply throughout the world, Japan has a solid number of highly capable AI engineers." Takahashi agrees, adding, "Right now, Japan has a great opportunity. Japan should press forward boldly with forward-looking AI policies at the national level, not only at the level of individual companies."

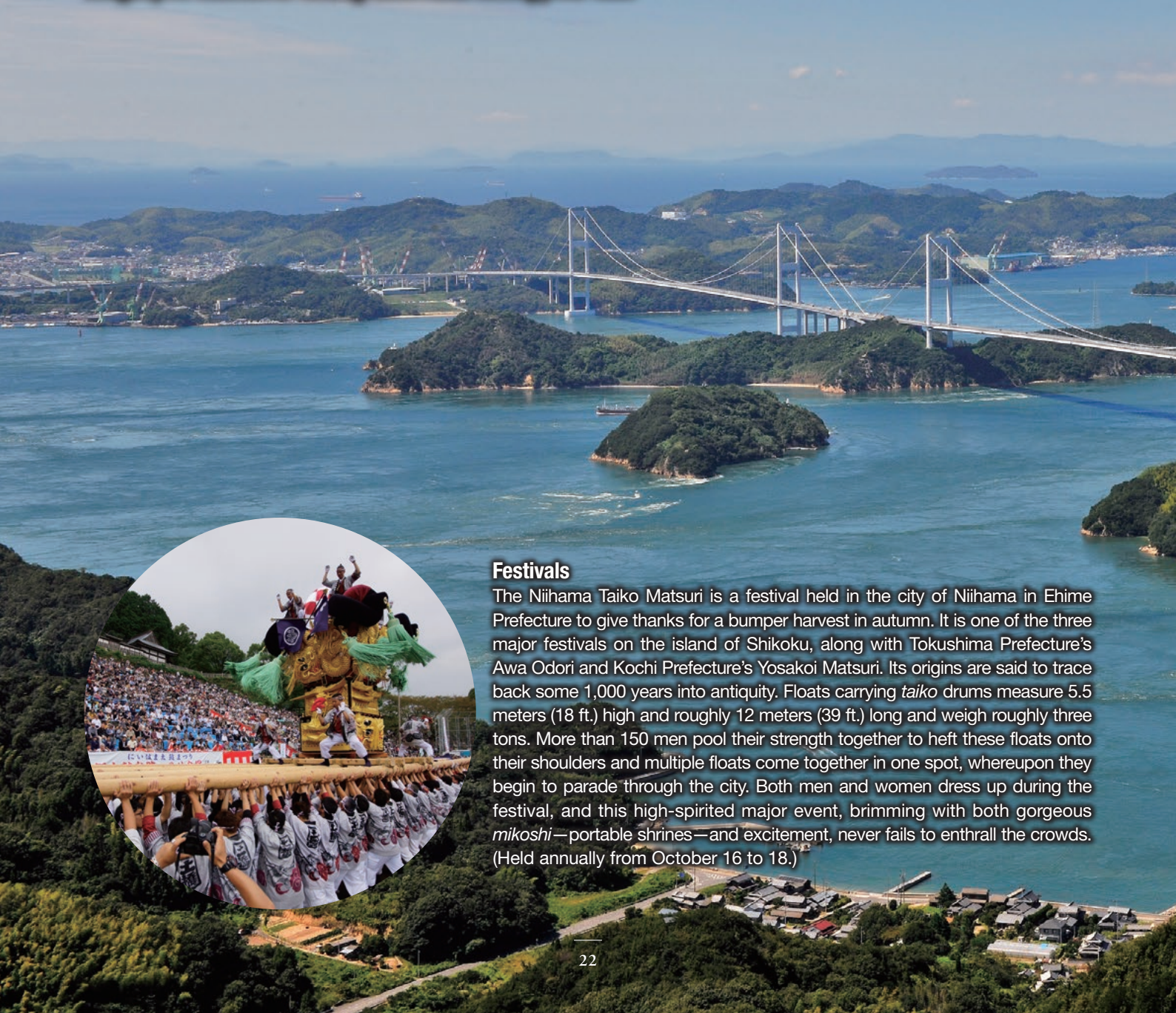


HEROZ, Inc. COO Tomohiro Takahashi (left) and CEO Takahiro Hayashi (right). HEROZ has more than 10 employees with amateur shogi rankings at the *dan* level, for which only high-level players qualify. Hayashi says, "We found out later that people we knew through playing shogi were superb programmers." Takahashi adds, "It's clear that shogi and programming are highly in tune with each other."

This
is
Japan

The Seto Inland Sea: An Enchanting and Tranquil Place

The Seto Inland Sea is surrounded by the three major islands of Honshu, Shikoku, and Kyushu in the Japanese archipelago. More than 700 islands dot the waters, which are as tranquil as a lake, forming scenery that is nothing short of breathtaking. Long bridges stretching from one island to another provide access to these islands and connect Honshu and Shikoku through three routes. An abundance of sumptuous seafood, traditional industries remaining on the islands such as pottery making and textile weaving, and welcoming inhabitants create an allure that attracts travelers with a magnetic charm. Some enjoy touring the area by boat while others cross the bridges to explore the area by car or by bicycle. The Seto Inland Sea is sure to delight you with never-ending discoveries during your visit.



Festivals

The Niihama Taiko Matsuri is a festival held in the city of Niihama in Ehime Prefecture to give thanks for a bumper harvest in autumn. It is one of the three major festivals on the island of Shikoku, along with Tokushima Prefecture's Awa Odori and Kochi Prefecture's Yosakoi Matsuri. Its origins are said to trace back some 1,000 years into antiquity. Floats carrying *taiko* drums measure 5.5 meters (18 ft.) high and roughly 12 meters (39 ft.) long and weigh roughly three tons. More than 150 men pool their strength together to heft these floats onto their shoulders and multiple floats come together in one spot, whereupon they begin to parade through the city. Both men and women dress up during the festival, and this high-spirited major event, brimming with both gorgeous *mikoshi*—portable shrines—and excitement, never fails to enthrall the crowds. (Held annually from October 16 to 18.)





Cycling

The Seto Inland Sea is a virtual utopia for cyclists. One of cyclists' many touring options is the 70-kilometer (43-mile) Shimanami Kaido highway linking the city of Onomichi in Hiroshima Prefecture and the city of Imabari in Ehime Prefecture. With a route linking islands directly above the waters of the sea, it features special lanes for cyclists and pedestrians and can be enjoyed by everyone from beginning cyclists to seasoned athletes. One-way bicycle rentals are also possible. Visitors can cross the bridges between islands, basking in the mild climate of the Seto Inland Sea while being invigorated by the feeling of flying above the sea waters. A trip only cyclists can experience, permeated by the gentle daily rhythms of the islands, awaits tourists.



The Origin of Japan's Modernization: Reviewing the Significance of the Meiji Restoration after 150 Years



In 1872, with the support of the United Kingdom, a railway was officially opened for service in Japan between Shimbashi Station and Yokohama Station, a distance of about 29 km (18 mi). The opening ceremony is illustrated here in a traditional Japanese *ukiyo*e print.

2018 is a significant year for Japan, as it marks the 150th anniversary of the Meiji Restoration. The Meiji Restoration was a major revolution that brought an end to over 260 years of feudal government. In its place, a democratic social and political system was established based on constitutional law over the course of about 20 years, and it led to significant economic reforms and growth.

“The driving force behind the Meiji Restoration was a strong desire for freedom,” says Shinichi Kitaoka, President of the Japan International Cooperation Agency (JICA) and Professor Emeritus of the University of Tokyo, who specializes in modern Japanese politics and diplomacy.

Having begun with the rise of the feudal Tokugawa Shogunate in 1603, the Edo period saw Japan mature both economically and culturally. At the same time, however, the Edo period was bound by a strict class structure, which even placed restrictions on access to education, meaning that Japanese society was far from free. It was the Meiji Restoration that finally abolished the strict class system and created a more free and

democratic system that allowed the Japanese people to unleash their full potential.

Under this new democratic system, Japan modernized



Shinichi Kitaoka

President of JICA since 2015. Emeritus Professor of the University of Tokyo. His specialty is modern Japanese politics and diplomacy. He has taught at multiple universities and has also served as Ambassador Extraordinary and Plenipotentiary (Deputy Permanent Representative of Japan to the United Nations) and on various committees established by the Government of Japan.

and developed rapidly. In order to facilitate this process, the Meiji Government turned to the models set by the U.S. and European countries.

In 1871, Tomomi Iwakura, *Udaijin* (Minister of the Right) under the Meiji Government, set off from Japan as Ambassador Extraordinary and Plenipotentiary on a diplomatic expedition known as the “Iwakura Mission.” With 107 top government officials, scholars and young students participating, the Iwakura Mission spent over a year traveling through the U.S. and various countries of Europe. Kitaoka explains, “The Iwakura Mission observed and recorded in great detail various aspects of American and European societies, from politics to industry, commerce and even agriculture. Through their observations, they came to realize that the military power of western nations lies in their industrial might. Not long after the mission, Japan became fully focused on the introduction of policies intended to enrich the nation through modernization and industrialization. Thus, it is no overstatement to say that Japan’s modernization began with the Iwakura Mission.”

Today, 150 years after the Meiji Restoration, that same spirit still lives on in Japan. Under the leadership of Kitaoka, JICA serves as an implementing agency of Japan’s Official Development Assistance (ODA) tasked with promoting international cooperation for developing countries. Kitaoka carries out his tasks “out of a desire to share with other countries Japan’s own experience of successfully modernizing in the years following the Meiji Restoration,” he explains. “As the first non-Western nation to become a developed country, Japan built itself into a country that is free, peaceful, prosperous and democratic while preserving tradition. It is our hope that Japan will serve as one of the best examples for developing countries to follow in their own development. Japan modernized under democratic ideals, with an established legal system and while proactively learning from other countries. I firmly believe that there are quite a few aspects of Japan’s experience that can provide lessons for developing countries today.”

According to Kitaoka, the fact that Japan was able to modernize while still preserving its own traditions makes its experience particularly valuable. “If we force our support upon developing countries while ignoring their culture and traditions, the support will not be able to last for long. Japan pushed forward with modernization, focusing our efforts on such cornerstones of national development as education, public health and infrastructure, while at the same time maintaining our treasured culture and traditions. JICA also strives to give proper consideration to local cultures while offering the types of support that will take root within the context of those cultures.”

In 2018, JICA launched “JICA Program with Universities for Development Studies (JProUD),” a program that invites future leaders from developing countries to Japan to complete master’s degrees at Japanese graduate schools, where they learn about Japan’s experiences with its own modernization and with providing development cooperation to other countries.

Kitaoka has high hopes for this program. “I believe that these students will not only study in their respective academic fields, but will also learn much from modern Japan’s experience of development, which differs significantly from the history of growth and development found in the West. Of course, Japan’s process of modernization also had its share of negative aspects, such as war and serious industrial pollution. I hope that these students will study the ‘Japanese experiences’ systematically, including negative ones, so that they may use this knowledge to contribute to the development of their own countries.”

Reflecting on the 150th anniversary of the Meiji Restoration, Japan hopes to use this opportunity to contribute even more to the development of other countries.



The Iwakura Mission set off from Japan on November 12, 1871 with 107 members, including top government officials, scholars, and others. The mission lasted around one year and ten months, traversing the continental United States and then visiting a range of countries in Europe.



JICA provides active cooperation for primary schooling around the world. The photo shows an elementary school in Ethiopia supported by JICA.

Towards the Future, Faster: Co-Creating a New High-Speed Rail in India



Prime Ministers Shinzo Abe and Narendra Modi take a tour of Kawasaki Heavy Industries' Hyogo Shinkansen train plant in Kobe, Japan on November 12, 2016.

A vast country in the throes of rapid economic growth, India's GDP shot up by over 6% during 2017. This is in addition to a population increase of over 13% during the last 10 years. Unsurprisingly, India is facing unprecedented demographic challenges as a result of this success.

"India needs mobility. Our average rail speed does not meet the growing expectations of the public. Unless we build a system that allows much faster mobility for our people, we'll struggle to move forward," explains Achal Khare, managing director of National High Speed Rail Corporation Ltd. "So for me, I knew we needed a high-speed rail. The question was 'which one?'"

After numerous in-depth feasibility studies, India's Ministry of Railways settled on a close working relationship with Japan International Consultants for Transportation Co., Ltd. (JIC). "The Japanese system was chosen for many reasons," explains Khare. "The Shinkansen (Japan's high-speed rail system) has maintained an unmatched safety record since its establishment in 1964, such as zero fatalities; it really has an edge over other high speed rail networks."

"Currently, the roughly 500 km (310 mi) route from Mumbai to Ahmedabad can take over eight hours to complete. This will be reduced to just two hours," says



Khare and the joint Indo-Japanese team conduct a survey for construction of an undersea tunnel in Mumbai.



Achal Khare

Managing Director of National High Speed Rail Corporation Ltd. He has been working on India's extensive rail network for over 34 years.



Toshiji Takatsu

Executive Vice President of Japan International Consultants for Transportation Co., Ltd. He has extensive experience in railway management and international diplomacy.

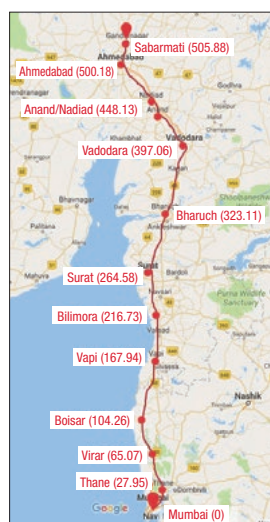
Khare. "This is a paradigm shift that allows us to enter into a new arena, but it also provides a huge economic boost. During the construction phase, 40,000 to 50,000 jobs will be created."

The majority of on-site construction materials will be Indian-made, part of Prime Minister Narendra Modi's "Make in India" initiative. "With this project, Japan has demonstrated that it is a strong partner of India," said Prime Minister Modi shortly after the Ground Breaking Ceremony in September 2017. Prime Minister Abe said, "For all of India's people, Japan's government and private sector will work tirelessly toward achieving high-speed rail that runs throughout India." He added, "A strong India benefits Japan, and a strong Japan benefits India."

To ensure India can take greater initiative during future high-speed rail construction, India and Japan are working together very closely. Khare is enthusiastic about Japan's efforts to speed up technology transfer. "We are moving forward very fast. I see a total commitment from all members of the Japanese team. They show a level of care and passion as if they were building this project in Japan," says Khare.

These positive sentiments are echoed by Khare's Japanese colleagues. "Working together is our keyword," explains Toshiji Takatsu, executive vice president of JIC, which has been working with India on research operations and detailed design for India's high-speed rail. "In 1853, India became the first country in Asia to have a railway. Presently it boasts an enormous network of over 60,000 km (37,282 mi) of tracks, so it is critical that we listen to each other's opinions in order to work well as a team," says Takatsu.

One issue the team faces is how to adapt Japan's Shinkansen technology for the Indian market. Summers in India are extremely hot, requiring different standards for train cars and tracks. There will also need to be other careful modifications to make the trains suitable to run



Making use of Japan's Shinkansen technology, India's high-speed rail is planned to cover the distance of about 500 km (310 mi) between Mumbai and Ahmedabad in around two hours.

Source: National High Speed Rail Corporation Ltd.

in India's environment, like adding protection from dust and sand.

Challenges like these are discussed at the local project office, which has a combined Japanese and Indian staff of over 200. Parties are held every month to foster bonds between team members. Takatsu explains, "Indian and Japanese staff members alike are very proud to be a part of this project. The opening of the Shinkansen in 1964 greatly advanced Japan's development as a nation, and we expect the same to happen in India."

Khare agrees on the huge potential of the project and on the importance of cooperation. "India has many cities spread out over a wide area, and there is a pressing need to connect them for high-speed travel among them. But perhaps more importantly, this line will be an everlasting symbol of friendship between our two countries, and I expect to see many Japanese and Indian companies and organizations cooperate closely."

India's high-speed rail is scheduled to open in 2023. Japan and India both look forward to that day.

Japan's "Free and Open Indo-Pacific Strategy" as Grand Strategy

In years past, many scholars criticized Japan for being a "reactive state" incapable of proactive or strategic action. I argued in my book *Japan's Reluctant Realism* (2001) that the rise of Chinese power was propelling Japan away from an earlier era of "checkbook diplomacy" towards a foreign policy strategy based on more proactive balance-of-power logic. At the time, I was very much in the minority among Japan scholars in the United States in making that point. Today there is a much broader consensus among scholars and diplomats that Japan is, in fact, attempting to lead in the development of an open and rules based order in the Indo-Pacific region. Now the debate is focused on whether Japan's grand strategy is *effective*.

Is the "Free and Open Indo-Pacific Strategy" Japan's grand strategy?

What is "grand strategy"? It is the integration of all instruments of national power to shape a more favorable external environment for peace and prosperity. These comprehensive instruments of power are diplomatic, informational, military and economic. Successful grand strategies are most important in peacetime, since war may be considered the failure of strategy. Sometimes states pursue grand strategies without any explicit announcement. Sometimes states ceremonially announce grand strategies, but fail to actually execute them. Prime Minister Abe Shinzo's government has announced the "Free and Open Indo-Pacific." Is it a grand strategy? And will it be effectively executed?

I believe the "Free and Open Indo-Pacific" flows from a strategic worldview in Japan, even if it does not spell-out every detail of the national objectives and instruments of power to be employed. That worldview is that Japan benefits from a regional order that is based on rule-of-law; transparency; openness; high quality rules for trade, investment and infrastructure; and the prevention of coercive actions against smaller states. That is a



Dr. Michael J. Green

Senior Vice President for Asia and Japan Chair at the Center for Strategic and International Studies (CSIS) and Director of Asian Studies and Chair in Modern and Contemporary Japanese Politics and Foreign Policy at Georgetown University. He was Special Assistant to President George W. Bush and Senior Director for Asia on the NSC staff.

worldview that is strongly shared by the United States, as one can easily discern from the Trump administration's decision to adopt the same label of "Free and Open Indo-Pacific" for its strategy towards the region. One can rightly criticize the Trump administration's withdrawal from TPP as undermining that vision, but the fact remains that a strong majority in the Congress and the American public support free trade, strong alliances, and expanded American engagement in Asia. Australia and

India also explicitly identify with the “Free and Open Indo-Pacific” framework, as the formation of a “Quad” forum among these four maritime democracies demonstrates. Middle and smaller powers ranging from Korea to Indonesia and Sri Lanka would strongly support this vision as well, though these powers are more vulnerable to Chinese pressure and careful about appearing to align against Beijing. Indeed, both Tokyo and Washington will have to accept that not all governments will openly sign on to the “Free and Open Indo-Pacific” strategy even though they will privately want the major maritime democracies to stand together for an open and rules based regional order—and most importantly, to dissuade Beijing from thinking it can change that order based on coercion.

The “Free and Open Indo-Pacific Strategy” for investment and sustainable economic development in the region

Japan’s version of the Free and Open Indo-Pacific has one strength over the Trump administration’s version, and that is the recognition that all the nations encompassed in the arc from Africa to the Western Pacific desire investment and sustainable economic development. Indeed, most are more interested in that aspect than open competition with China, as much as they each worry about Beijing using its “Belt and Road” initiative to establish a more hegemonic position that might limit their own freedom of action. The U.S.-Japan-Australia-India Quad has begun taking up the theme of “quality infrastructure,” which suggests that Washington has realized this shortcoming in its own formulation. Japan provides far more government-supported infrastructure assistance through yen loans that the United States does through its official lending, but together the United States and Japan can bring a great deal to the table through cooperation with the Asia Development Bank and the World Bank. The Japanese decision to cooperate with China on the Belt and Road was wise, since this will give Tokyo some

opportunity to hold China to higher levels of transparency and accountability through cooperation rather than competition. Japan and other like-minded states will have more leverage in this approach if there are parallel efforts to expand support for infrastructure investment by the developed countries and the international institutions.

The role of values of Japanese and American strategies in the Indo-Pacific region

There is another dimension to shaping the direction and impact of the Belt and Road that Tokyo and Washington must both take more seriously—and that is the role of values in our respective “Free and Open Indo-Pacific” strategies. The goal should not be to force the diverse political systems across Africa, South Asia and East Asia into one model of liberal democracy. On the other hand, the United States and Japan should not ignore governance issues within countries so that we can “keep up” with China. The reason is simple: states that have greater transparency, freedom of press, legislative accountability, and rule-of-law will be more resistant to bribery, coercion and subjugation and will insist on higher quality infrastructure. Our goal is not to stop China’s infrastructure investment, but instead to keep healthy pressure on Beijing to conform with established international norms. That pressure will only be effective if it also comes from within recipient nations.

I would conclude by arguing therefore that Japan’s “Free and Open Indo Pacific” framework is an important element of grand strategy and that it has a good chance of being effective, if we define the goal as shaping the region’s response to China’s rise rather than somehow trying to “contain” China. The international relations of the Indo-Asia-Pacific are a contradictory mix of cooperation and competition, and the United States and Japan will need nuanced approaches that recognize both aspects of the problem and leverage our strong alliance and our partnerships with like-minded states.



Hiroshi Kodama

Worked with the Ministry of Agriculture, Forestry and Fisheries in Japan on rural development and promotion of agriculture, food-related technology development support, and the analysis and improvement of the value chain of flowers. He worked on a United Nations Food and Agriculture Organization project in countries in south-east and south Asia and served with the Japan International Cooperation Agency (JICA) in the Philippines and Nigeria. Currently, he is working with JICA in Senegal and Guinea.

Series: Japanese Individuals Contributing Worldwide

An Expert's Touch Improves African Farmers' Lives

For many African countries, national development relates directly to agricultural development. The present insufficiency of institutions and personnel offering technical expertise in agriculture, however, hinders improvements in agricultural productivity, forcing countries to depend on imports of foreign foodstuffs.

Japan has long dispatched expert personnel to provide support for African agriculture. When the Sixth Tokyo International Conference on African Development (TICAD VI) was held in August 2016, many African heads of state asked for an expansion of this support. Japan has responded by creating a new platform to connect Japan and African nations. While continuing to

dispatch specialists to share their agricultural expertise and educate locals, Japan will also boost efforts to create effective Official Development Assistance (ODA) projects related to agricultural cooperation.

The Government of Japan, after considering the requests from national leaders at summit meetings and determining specific needs, recently dispatched Japanese agricultural expert Hiroshi Kodama to Senegal and Guinea. Kodama, who has a wide range of experience in his field, explains the approach as follows. "In agriculture, just as in providing any kind of support, things won't go well if you force your technology upon people. Before introducing new technology, it's so important to match



Kodama in Nigeria explaining the process of parboiling with false bottoms. JICA is partnering with the World Bank, the International Fund for Agricultural Development, the German Corporation for International Cooperation (GIZ), and other institutions to spread the process throughout Nigeria. As of January 2018, 23,607 persons have been trained in the new process and 14,216 have adopted it.

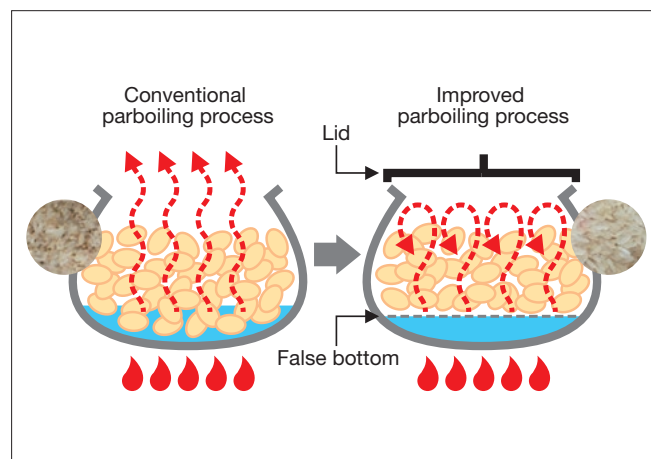
innovative, adaptive solutions with the needs of the people. This is what we mean by the term ‘appropriate technology’: responding to people’s needs in ways that make sense technologically and economically for those particular people.”

Kodama, who grew up in a city, has strong sentiments about agriculture. “As a child, I realized that for me to enjoy urban life, I depended on the strenuous labors of farmers that provided my food. Out of a feeling of indebtedness to these farmers, I decided in high school that I wanted to pursue a career that involved doing something useful for them.”

This led Kodama to major in agriculture in university, where he studied agricultural chemistry. He then went on to do specialized research on soil and plant nutrition in graduate school. Kodama’s thought when he learned in university about the plight of farmers in developing countries was “I wish I could help make their lives better.” He joined the Ministry of Agriculture, Forestry and Fisheries after graduation, and has since been working for agricultural development in Japan. Doors also opened for Kodama to contribute his expertise in Asia and Africa. Recently, he has been involved in a project teaching rice-processing techniques in Nigeria.

Much of the world’s paddy rice is processed by parboiling, a method of cooking in which hot water and steam force nutrients in the rice bran back into the rice kernel. Parboiled rice can also be milled efficiently and with less breakage than non-parboiled rice. In Nigeria and elsewhere in West Africa, however, the parboiling process wasn’t performed optimally and the quality of the milled rice varied greatly. Kodama worked to solve

Parboiling process



In the conventional process, rice near the bottom gets boiled, but heat doesn’t adequately reach the rice at the top. Inserting a perforated false bottom separates the rice and water, allowing the boiling water to steam the rice. Adding a lid prevents the steam from escaping, forcing it to circulate and cook the rice evenly.



Kodama hopes “not only to spread the false-bottom technique, but match innovative, adaptive solutions with the needs of people in Senegal and Guinea. To do this, I first want to get a clear picture of the people’s situation with my own eyes and ears and figure out what they need.”

this problem. He encouraged Nigerians to adopt a parboiling technology that uses a perforated “false bottom” (see diagram). This increases the rice’s quality and allows it to be traded at a price 10% to 20% higher than conventional rice. Kodama explains, “In rural districts, farmers’ wives are often tasked with the parboiling process. After beginning to use the false bottom, their income has risen and I’ve heard some of them tell me ‘now I can pay my children’s school-related fees’ or ‘I can buy lots of beans and eggs now.’”

Such reports bring a smile to Kodama, encouraging the grateful city boy turned farmers’ friend in his mission to discover, develop, and spread the use of appropriate, life-changing technology so that it can bring smiles to the people of Senegal and Guinea as well.



Josh Grisdale

Born in Canada, and has lived in Tokyo since 2007. Manages the websites for a group that runs nursing homes, retirement homes, kindergartens, and nursery schools. In his spare time, he works on *Accessible Japan*, his website that provides accessibility information in English for disabled people visiting Japan. Josh has cerebral palsy, is quadriplegic, and has used a wheelchair since the age of three. He became a Japanese citizen in 2016.

Grisdale in his barrier-free workplace. He calls barrier-free design an investment that benefits all, including the elderly as well as people with disabilities.

Series: Friends of Japan

Making Japan Accessible to All

Can disabled guests to the Tokyo 2020 Olympic and Paralympic Games expect to find Japan accessible? Josh Grisdale, creator of the website *Accessible Japan* and a 10-year resident of Japan answers a resounding “yes.”

Canadian-born Grisdale, a quadriplegic, was diagnosed with cerebral palsy when he was six months old. From the age of three, he used an electric wheelchair. Disability did not stop the ambitious boy from working hard and getting top grades in school.

Taking Japanese in high school sparked in Grisdale the desire to see Japan firsthand. In 2000, he came to Tokyo with his father for one month as a high school graduation present. Accessibility in Japan exceeded his expectations and the spirit of *omotenashi* (hospitality) impressed him deeply. After visiting Sensoji Temple in Asakusa, he remembers looking for an elevator to take him to the subway platform. The elevator had yet to be built, but six station attendants carried him and his 130-kilogram

wheelchair down the flights of stairs. This eagerness to serve the customer, along with Japan’s appealing mix of the traditional and modern planted in Grisdale the dream of one day making Japan his home.

Significant for Grisdale and other disabled people, in this same year, 2000, Japan enacted the Transportation Accessibility Improvement Law, committing the society to becoming “barrier-free.” Grisdale returned to Japan in the years that followed, each time impressed by the accessibility improvement. He felt that everyone, not just the government, was working together for this goal.

In 2007, Grisdale moved permanently to Tokyo. He has a full-time job managing social welfare institution websites. In addition, working in his spare time, he launched his own website, *Accessible Japan*, in 2015. “I started the website because of the limited information on accessibility in Japan in English. I don’t want people to give up their dream of visiting Japan because they think



Implementation of the Transportation Accessibility Improvement Law has resulted in 92.8% of train stations and 92.6% of city buses in Tokyo being equipped with step-eliminating devices as of March 2017.



Checking Meiji Shrine for accessibility. Grisdale visits sightseeing spots on weekends and posts reviews on *Accessible Japan*.



Chatting with his boss. Grisdale appreciates the at-home feeling of his workplace.



Grisdale started *Accessible Japan* in 2015. The website has gained popularity with foreign travelers that need assistance. He also published a book, *Accessible Japan's Tokyo*, in 2017.

it's not accessible." Grisdale's efforts have touched lives. For example, an Australian father and his daughter with cerebral palsy, bonded by their shared love of anime, decided to come to Japan because of the information on *Accessible Japan*.

In daily life and on weekend excursions, Grisdale can observe Japan's progress toward accessibility. After visiting Meiji Shrine, for example, he wrote in a review that the gravel paths were difficult for wheelchairs to navigate. He returned two months later to find that ramps and a pathway down the main route had already been added.

Seeing everyone work together to make the Tokyo 2020 Olympic and Paralympic Games accessible excites Grisdale, as does the aim of welcoming the highest ever number of participating countries and regions to the Tokyo Paralympics. Grisdale envisions Tokyo becoming a city that is open to everyone, and looks forward to seeing more buildings with entrance ramps, accessible platforms

at stations, and an increased number and variety of accessible hotel rooms. With Japan a leader in robotics and barrier-free design in Asia, he feels confident that challenges will be overcome as Japan boosts efforts to make stations, airports and other facilities barrier-free by 2020. Grisdale seeks to do his part by providing up-to-date and deeper-level information on accessibility in English. He visits sites, searches websites, and makes calls so he can inform others with disabilities of the location of elevators and restrooms, the accessibility of tourist sites and restaurants, and other important details. He wants each disabled visitor to enjoy Japan in safety and comfort.

Grisdale reflects, "Coming to Japan actually meant a lot of freedom for me. My dream now is that more and more people find Japan accessible and exhilarating as I have." Towards that end, Grisdale and *Accessible Japan* are paving the way for other people to realize their dream of visiting Japan.

Shared Histories, Bright Futures

My first contact with Japan came through watching dubbed anime, which is probably true for most of us in Europe. I guess I first heard the language while watching *Naruto* in the original Japanese. But as I tried to make sense of the sounds I was hearing, I was unaware of how my country's long history with Japan would strongly influence my future career.

I first studied Japanese at Zuyd University, taking part in an exchange program with Kyoto University of Foreign Studies during 2009 for five months. This was followed by four months at the Japan Foundation Japanese-Language Institute, Kansai. The warmth and kindness of the local people left me with a soft spot for the Kansai area.

After this, I studied Japanese language and culture and international relations for my master's degree in Leiden, a Dutch town not far from The Hague. While studying there, I was selected for an internship at the City Hall of Nagasaki in 2014. Nagasaki and the Netherlands have a long history of trade and cultural exchange. During the Edo period, the Netherlands was the only country in Europe that was permitted to trade with Japan. Dejima, a small island in Nagasaki, was the only port that was open to Dutch ships. This was as a result of Japan's strict isolationist policy. This special relationship was further celebrated in 2017 when Nagasaki and Leiden became sister cities.

After my return from Nagasaki and my subsequent graduation, I applied to become a Coordinator for International Relations (CIR). I was thrilled to be accepted, and I was soon dispatched to Koriyama, Fukushima. Like Nagasaki, Koriyama has a profound connection to the Netherlands. It could be said that Koriyama owes its development largely to the efforts of one Dutch man.

Up to the 1870s, Koriyama's fields were so dry that fights broke out over water usage, so an expert in hydraulic engineering by the name of Cornelis Johannes van Doorn was invited to Koriyama to help irrigate the area.

The work he oversaw provided a steady flow of water through the Asaka Canal to Koriyama, paving the way for agriculture and industry to develop. Local schoolchildren all know of his contribution to their hometown, with a statue in his honor.

This sense of gratitude is felt so deeply that Koriyama



Joost Kraft

Born in Sassenheim, the Netherlands. Graduated from Zuyd University and Leiden University. Has been working as a CIR in Koriyama, Fukushima Prefecture since August 2015. Enjoys spending time in Fukushima's beautiful countryside and attending dramatic local festivals, as well as speed skating and karaoke.

Joost in front of a poster depicting van Doorn in the entrance hall of Koriyama City Hall.



Joost standing in front of the Jurokkyo Sluice Gate, a key component of the Asaka Canal construction project. It regulates the water level of Lake Inawashiro while allowing water to flow to the Asaka Plains.

City decided to construct a memorial to him in the Netherlands. A gravestone was carved from local rock, shipped to Amsterdam and installed there. This was also backed by a pledge to provide 100 years of maintenance. Every few years, a delegation from Koriyama visits this grave to pay their respects. In addition to this recognition, van Doorn's hometown of Brummen has been sister cities with Koriyama since 1988.

On arrival in Koriyama I came to share Koriyama's appreciation for his hard work, because in August 2015 when I stepped out of the Shinkansen bullet train the temperature was 38°C (100.4°F). Without a water supply, I would have surely perished! But thankfully the heat was not the only warm welcome I received, as my new colleagues quickly helped me feel right at home. Thanks to them, I soon found my feet as a new member of the Koriyama International Policy Division.

From teaching introductory Dutch language lessons to

translating and performing the Koriyama City mascot's theme song, my job here is very rewarding. I also publish *EiGo Koriyama*, an English magazine for our many foreign residents. It contains news and information on local events, including strawberry picking, shrine visits and festivals. My favorite event by far is the Taimatsu Akashi, a festival in the town of Sukagawa, south of Koriyama. Honoring those who perished during the civil wars of the sixteenth century, this fire festival sees giant torches carried up Mount Gorozan, the largest of which measures ten meters (33 ft.) long and weighs three tons. They are then placed upright and set alight.

But Koriyama isn't all fire and fury. I love to escape to the countryside during my time off. In the summer I go for drives in Fukushima or go for a swim in Lake

Inawashiro, the fourth largest in Japan. There are also two great skate rinks nearby, where I've recently started speed skating again, a sport I used to practice back home in the Netherlands. In fact, Koriyama has been selected as a Host Town of the Netherlands for the Tokyo 2020 Olympic and Paralympic Games.

I haven't made up my mind what I'd like to do after finishing my CIR contract. Perhaps I'll study translation in more detail, but I'd also like to try working in the private sector in Japan. I'd like to continue strengthening ties between Japan, the Netherlands and the rest of the world. For those considering applying to the JET Programme, I'd say this: Go in with an open mind, and read up on articles like this so that you know what might be asked of you. But most of all, just do it!



A map of the Asaka Canal in 1882. On the right-hand side area of the map, the water supply was poor, which was devastating for local agriculture. However, during the Meiji period a canal stretching from Lake Inawashiro (seen in the left of the map) was planned.



The International Policy Division staff in discussion at City Hall.



Joost taking part in the Koriyama Uneme (court lady) Festival.



Elementary school students enjoy a presentation about Holland from Joost.

About the Japan Exchange and Teaching (JET) Programme

The Japan Exchange and Teaching (JET) Programme began in 1987 with the goal of promoting grass-roots international exchange between Japan and other nations, and is now one of the world's largest international exchange programs. JET participants are placed in every region of Japan and work in one of three positions: assistant language teachers (ALTs), coordinators for international relations (CIRs), or sports exchange advisors (SEAs). In 2016, the JET Programme welcomed 4,952 participants, and currently there are approximately 62,000 alumni from 65 countries living in all parts of the world.



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

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