



Gateway to Innovation

Japan apparently needs to step up its game if it wants to regain its leadership in technology. Over the past few years, news articles have continually reported how South Korea, Taiwan and China have eclipsed Japan as the world's technological powerhouses.

Japan's heavy hitters like Sony, Hitachi, and Fujitsu, were once the darlings of the high-tech world. Now, challengers from neighboring countries have ended their dominance.

While it may appear Japan has lost some of its luster, its competitive edge cannot be measured simply by brand recognition. Japan's established companies don't fully reflect how the world's third-largest economy continues to push technological frontiers.

To appreciate the long-term prospects of Japanese innovation, one must understand the role that high quality engineering and design play in the manufacturing of products that find their way around the world. This passion for finely engineered things is rooted to the ancient Japanese concept of monozukuri, or the art of making things.

For Nobuhiko Tomishima, President and CEO of espresso machine maker FMI Corporation: "Japan's competitive strength lies in its millions of SMEs

specializing in one product, but are unmatched with respect to quality. As an SME, we endeavor to grow together with global partners."

MORESCO Corporation is another SME that found success in the global market by selling one-of-a-kind products such as lubricants for the car industry and hard disk surfaces. President Akada said, "We believe that specialized Japanese SMEs like us contribute to enhancing the presence of Japan in various regions by supporting the development of local economies."

Niigata boasts many local industries, such as food manufacturing (sake and rice crackers) and textiles for kimonos, as well as metalworking and Western tableware that Tsubame and Sanjo are so famous for.

"What this means is that in Niigata you can easily find customers, resources vital to your business, and business partners that use advanced technologies," Governor Ryuichi Yoneyama said.

The capital city Niigata has also launched an am-

bitious project, dubbed Niigata Sky Project, to bring together manufacturers across the prefecture to facilitate collaboration and coordination among themselves.

"This is the first example in Japan where a city government owns a manufacturing base. We are confident that the

whole movement will gain momentum as this helps not only Niigata's workforce, but also national manufacturers and financial sectors across the country," Mayor Akira Shinoda said.

Meanwhile, the Greater Nagoya region, principally comprised of Aichi,

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A Japanese city shows the world how to go green

The City of Kitakyushu once grappled with unsustainable development and pollution back in the 1960's as Japan was experiencing its economic boom. Because most of the country's metal foundries and factories were based here, the city suffered severe air and water pollution.

But with the unified action by its residents, businesses and public sector, Kitakyushu transformed itself from a heavily polluted industrial city into one of the world's best examples of a green and clean urban center. Kitakyushu is continuing to develop while maintaining a balance between environment conservation and economic growth.

Since his election in 2007, Mayor Kenji Kitahashi has been sharing Kitakyushu's experience and knowledge to the rest of the world, particularly with his Asian

colleagues:

"Kitakyushu is a top runner in international environmental cooperation and has accepted trainees from over 150 countries and regions, mainly from Asia. I am certain that Kitakyushu can be a successful model for overcoming severe industrial pollution, which is of interest to other cities that want to improve their infrastructure on the face of issues with water and waste."

Kitakyushu's environmental and technological leadership holds itself up as an excellent partner of cities that want to overcome their environmental problems.

The city and its residents have proven that a low-carbon society is possible by striking a healthier balance between business interest and environmental considerations. ■

www.city.kitakyushu.lg.jp



Kenji Kitahashi, Mayor of the City of Kitakyushu

Mie, Gifu and Shizuoka, is the epicenter of Japan's manufacturing strength.

With its focal point in Nagoya, the region's industrial output places it alongside the top GDP countries.

Leading this drive to attract foreign investments is the Greater Nagoya Initiative, which acts as a guide for manufacturers, exporters and foreign companies.

"We aim to be a one-stop support center for foreign companies wanting to enter the Greater Nagoya region and Japanese SMEs wanting to expand globally. This is why we build a lasting relationship with foreign companies that enter the region and provide access to companies in Aichi, Mie and Gifu, as well as some parts of Shizuoka and Nagano, all within a 100-km radius of Nagoya," Man-

ager Kiyono Watanabe explained.

At the eastern end of Chubu is Shizuoka, a city divided into three sections: East, Central, and West. The West excels in manufacturing and optoelectronics, Central in food science, and the East in pharmaceuticals. These three sectors have set up centers in main areas in Shizuoka to support innovation.

For Hamamatsu Agency for Innovation Executive Director: "Honda, Suzuki, and Yamaha are located in Shizuoka. This attests to the long manufacturing history of the prefecture. People here have well-developed technical skills. At the same time, people here are open-minded and venture spirited, so having new ideas and creating new products is usual."

The mild climate, low commercial rent and dy-

amic residents have made Kyushu very attractive to investors. Like other major cities in Japan, Kyushu's infrastructure is highly developed and its airport is located near the city center. The country's fifth-largest city and its capital, Fukuoka has seen its population grow by 15,000 each year and, as of 2016, is around 1.5 million.

"The difference between Fukuoka and Kyushu is geographic location. Kyushu's main population centers face the Sea of Japan. This means we are safe from tsunamis. It is also closer to one of the world's most dynamic regions, the ASEAN countries," Kyushu Economic Federation Chairman Yuta-ka Aso said.

"Our mayor also has very strong ties to Tokyo and is a visionary whose policies helped spur startups,

venture capital firms and a spirit of entrepreneurialism. With energetic people, it is no surprise that Fukuoka is Japan's fastest growing city," Aso added.

Responding to the fast changing social and economic landscape, the city established The Fukuoka Directive Council, a multi-body organization tasked with overseeing the development of the region.

Shuhei Ishimaru, Fukuoka Directive Council Director General, said: "To get Fukuoka future-ready, we bring together both the private and the public sectors, discovering the best in each of them to get them working together. Regional development used to be about building infrastructure. For us, it's about making Fukuoka a human and technological gateway to the rest of East Asia. ■

GREATER NAGOYA INITIATIVE

Driving tomorrow's innovation. Creating a new future.

"As a national base of unique manufacturing innovation and home to many suppliers of advanced production technologies, the area serves several of Japan's advanced industries such as aerospace, next-generation vehicles, machinery, and medical devices."

GEOGRAPHICAL ADVANTAGE

Situated in the middle of the Japanese archipelago, Greater Nagoya is a region within a 100 kilometer radius of Nagoya, the third largest city in Japan after Tokyo and Osaka. Greater Nagoya is the perfect location for businesses that want to cover the domestic market and access the Asia-Pacific region.

STRONG INFRASTRUCTURE

The area is home to a comprehensive and modern network of expressways, railways, airways and seaways that ensure efficient and effective delivery of goods and services, and offers advanced IT infrastructure. From Nagoya station by bullet train, it takes only 95 minutes to Tokyo area and 55 minutes to Osaka station.

ONE-STOP SUPPORT

The GNI acts as a one-stop business support center for foreign companies considering doing business in central Japan, by helping them gather local information, business match-making, arrangement of business meetings or networking, and aiding their operations in the region.



GREATER NAGOYA INITIATIVE CENTER

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Monozukuri: A unique spirit in manufacturing

The Japanese take the concept of *monozukuri* so seriously that they apply that ethos of craftsmanship to every step of production, whether they are making food or assembling electronic devices consumed by billions of people around the world.

Since the 1980s, Technican Co. Ltd. has ensured the freshness of Japanese food. Seeing that dining out was becoming more popular, company founder and president Yoshiro Yamada developed new freezing technology that preserved beef and seafood for weeks, and in some cases for years, without compromising their taste, appearance and texture.

"I see that our freezing equipment will revolutionize the food industry in terms of transportation, supply management, and business benefit for food companies. Food can be frozen during its peak season at its lowest market price and sold in other

seasons when high in demand. On a bigger scope, we envision a stable food supply for our future world. Imagine all the food that won't go to waste," Yamada said.

"For the first time since I started the business, government and large organizations have taken notice. Although we already have a large share in the market, we are excited to take this idea farther, to the rest of the world," he added.

Technican, based in Kanagawa, is also working with the medical sector to study ways its technology can help the industry, such as with blood banks.

In neighboring Shizuoka, where food also occupies pride of place, wasabi has become the definitive product of the prefecture, which accounts for 76 percent of the country's production. Family-run Tamaruya Honten, led by fifth-generation president Hiroyuki Mochizuki, went from selling only wasabi pickles to forming busi-



INOAC'S headquarters in Nagoya

ness-to-business relationships with food companies to make wasabi-flavored products.

"*Monozukuri* is not limited to industrial products alone. Creating food products is also an art. To invite more partnerships, we will be focusing on further product development and on looking for more applications of wasabi," said Mochizuki, who is eyeing the United States, the UK, France, Singapore and Hong Kong for potential partnerships.

That same spirit is alive in Eureka Lab President Seiji Katayama. Eureka Lab Co.

was mostly involved in the R&D of medical supplies. This led to the development of an emulsification device for hydrogen water that can erase oxygen radicals.

Since then, Eureka Lab has been devoted to the development of a new technique to cure diseases related to reactive oxygen.

It has also acquired a patent in the United States for its system and is looking for research and product development partners.

With an inclination to build things, plastic models producer Tamiya is a brand

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recognized by millions of hobbyists in Japan and the rest of the world.

"We want to encourage people, especially children, to construct our kits and to nurture their creative side and that *monozukuri* spirit," said Chairman Shunsaku Tamiya.

"To achieve this, we have to be first in quality. After all, that is the ultimate edge of Japanese brands. With that, everything is done in-house, from design to production to packaging," said Tamiya, whose company entrusts its U.S. subsidiary and at least 30 partners worldwide with the distribution of its scale model kits, radio-controlled cars and modeling tools and supplies.

Despite concerns that Washington may adopt protectionist trade policies, Yoshimitsu Kaneyuki, the president of Kyushu-based

Canycom, remains generally optimistic about its prospects in the massive North American market.

The manufacturer of small construction and agricultural machinery is among the thousands of Japanese family-owned SMEs that recognize possible risks of doing business in the United States. But having lived in the United States, he understands that the key to success in this market is in delivering more specialized value to its specific customers bases.

So; Canycom is responding to such specific market needs by collaborating with specialist companies in North America, where it has operated since 2001.

"We changed our business model there from agricultural machinery to small construction and brush cutting machinery.

We have been co-developing new products with our U.S. partners for a couple of years now. We keep a close eye on our markets and come up with the best solutions for each of them," Kaneyuki said.

Mie-based Nabell Corp. is another company that has shown how to adapt swiftly to changes in its industry and venture beyond its original boundaries. Starting out as a producer of optical camera bellows, Nabell had to develop other applications for its technology.


"The smartphone phenomenon changed the landscape completely. We had to examine what purpose our products truly served," President Norio Nagai recalled. This led to a new line of products and innovative applications.

"Our solutions involve things that can expand and



Designing growth through constant innovation

Since 1944, Tajima has manufactured multi-head embroidery machines that have found their way around the world, thanks to the strong partnerships with its loyal distributors.




Tajima Group Chairman Hitoshi Tajima believes that nurturing relationships through mutual trust and product education assures the company's global growth.

Tajima regularly trains its distributors on its newest products and innovations, which allows them to provide the best after-sales service to customers.

"Technology is the most important factor for Japanese manufacturers. We always have to think of something different and new to continue growing. Besides, we hold the competitive advantage because of our valuable after-sales services and consistent high quality products," Mr. Tajima said.

One of the Chairman's missions is to collaborate with various international companies and other industries to produce pioneering products that will meet the future needs of new customers and markets.



Model TMARKK Type-2 series

"For any manufacturer, collaboration is often needed to improve. We must be open to working with others and share our knowledge and technology, if we are to produce anything exceptional," Mr. Tajima said.

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contract. With this idea, we changed our domain strategy and entered the medical field and even solar power," Nagai said. In partnership with Mie University, Nabell launched a foldable modular solar panel that weighs only three kilograms. The company currently holds 27 patents for its various products.

In Aichi, one company has taken innovation to its very heart. Inoac Corporation, whose name is a mix of innovation and action, started out as a manufacturer of bicycle tires and tubes and introduced polyurethane foam to Japan. Over the years, rather than specializing in one thing, it extended its technological know-how to rubber, plastic and new materials.

Apart from expanding its expertise, Inoac also widened its operations around the world to include data

gathering and R&D. It is present in North America, Europe and Asia.

"We want to continue making innovation on a global scale. For example, we see the U.S. not only as a sales partner but also as a technology partner," Chairman and CEO Soichi Inoue said.

Aichi-based Tajima Group has stuck to its original product while constantly innovating it. Starting as a small sewing machine manufacturer, the Tajima family set up its first assembly factory 50 years ago. Today, it has a one-third share of the global market and a 60 percent share in the United States, with 60 distributors worldwide.

Chairman Hitoshi Tajima noted that they did not attain this success easily. "The market has been quite tough recently with players coming in from China,

Korea, and Germany. To survive, we have to remind ourselves that we are Japanese manufacturers, and our advantage is in upgrading and developing our products," he said.

"Companies sometimes ask for our technology and we develop something new together. We welcome business collaboration and seek innovation. We will never be satisfied with the present and will always aspire to grow," Tajima stressed.

In the field of semiconductors, the *monozukuri* spirit is exemplified by Teikoku Taping System, a producer of semiconductor manufacturing equipment based in Nagoya. The company has stayed ahead of the competition by using 3D semiconductor fabrication and packaging technologies.

President H.C. Lee sees

great potential within the IoT and automotive sectors. For these fields, the company is targeting large progressive markets, such as the U.S. and Europe, where companies generally appreciate the high quality products that Japanese brands, such as Teikoku Taping System, can offer.

Spurred by the West Coast's vibrant and cutting edge semiconductor industry, the company is confident of its business in the US. At the same time, Lee believes that maintaining its manufacturing base in Japan is better for the long term than relocating to a country with cheaper production costs.

"If everything were the same, we could leave Japan because it's cheaper. But we remain in Japan because we are after the intellectual resources to create

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When Technican founder and President Yoshio Yamada developed his refrigeration technology over 30 years ago, he wanted to meet the fast changing demands of the rapidly growing Japanese food and restaurant industries. At that time, conventional freezing technology affected food quality badly, especially if food needed to be stored for more than a week.

Yamada's patented "TOMIN" liquid freezer technology allowed food to be frozen while maintaining their cellular composition. It meant that once thawed, food would retain the same texture and flavor. The technology has opened up a lot of opportunities as its applications extend beyond the food service industry.

The potential impact of this technology in improving food-related logistics, assisting the medi-

cal and pharmaceutical industries, while also providing a real chance to contribute to global food security, has remained untapped.

From keeping meat and fish fresh to preserving blood and pharmaceutical compounds, Technican's game-changing technology has caught the attention of the private and public sectors.

"We are a small company but we would like to spread our wings and contribute to other industries.

It is my dream to help people all over the world. We are very much open to forging new and strong partnerships in other countries," Yamada said.

Technican founder and President Yoshio Yamada

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solutions for more challenges and technological breakthroughs. We want to stay in a place where there is an active culture of *monozukuri*," Lee said.

Aside from adopting that craftsman-like ethos, Aichi-based engineering company Chuozen adds to its work ethic the idea of *kotozukuri*.

"Japan industries are known for their craftsmanship or *monozukuri*, which literally means creating things. We would like to introduce the concept of *koto*, which is the solution that adds value to *mono* or things," President Masashi Yanagida explained.

Chuozen has built a strong reputation in mechanical design and in computer-aided engineering analysis, as well as in operations and maintenance. More than half of its business comes from

its operation and maintenance services, with many of its clients coming from the aerospace and automobile industries.

Yanagida notes that although Chuozen is heavily involved in the manufacturing industry, it does not do any manufacturing.

"There are already so many companies producing things so we do not need to play that field. What we can do instead is add value," he said.

Yanagida's priority is helping raise the standards of Japanese manufacturing through Chuozen's innovative solution. "Although we are open to doing business with global leaders like Raytheon, we also want to focus on the domestic companies because we want to support them in upgrading and innovating the *monozukuri* arena in Japan." ■

Advancing Japan's biotech and healthcare

Japanese companies are known as pioneers in a host of industries. One such company, Osaka-based Japan Bio Science Laboratory (JBSL), has made health foods and ingredients since 1974. It was the first worldwide to produce fermented soybean extract with a high content of Nattokinase (branded as NSK-SD).

"Nattokinase is the fibrinolytic enzyme contained in the Japanese traditional fermented soybean called natto, which is used in dietary supplements intended to prevent thrombosis and protect cardiovascu-

lar health," said President Kenichiro Azuma.

"As many people now live longer, the risk of cardiovascular diseases increases. Quality of life matters more and more and attention is given to disease prevention through appropriate exercise and healthy diet. Because of the safety and efficacy of our product, we want to share this with the world," Azuma added.

One good example of its efficacy was demonstrated in 2016 in a randomized, double-blind, placebo-controlled, human clinical trial, wherein a hypertensive population saw a reduction



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in blood pressure with the consumption of Nattokinase.

Now that the product has gained the approval of the European Food Safety Authority, Azuma believes the company is ready to market its pioneering product around the world. JBSL is seeking the most effective sales channels abroad.

Also in Osaka, generic drug manufacturer and distributor Towa Pharmaceutical will maintain its focus on Japan and contribute to the Abe government's goal of increasing the volume usage of generic drugs to 80 percent by 2020.

"To achieve this goal, there needs to be a stable supply of generic drugs in Japan," said President Itsuro Yoshida.

For distribution, Towa Pharmaceutical has employed the Towa Direct Sales System. Among ge-

neric manufacturers, it has the largest number of medical representatives in Japan.

"This allows our representatives to directly enlighten clients about our products and also gather feedback. We can then easily incorporate their comments into the way we improve our products," Yoshida said.

"To add value, we have been particular in developing certain properties about our drugs, like masking bitterness in taste while maintaining dissolution time and bioequivalence," he added.

Yoshida hopes that the manufacturing and formulation know-how gathered over 60 years in Japan will help them once they expand to the United States and other nations and regions.

Meanwhile, Nippon



Towa Pharmaceutical's plant in Yamagata, Japan

Gene aims to advance the overall biotech industry. Being the first biotechnology venture established in Japan in 1982, it has proven to be a trailblazer among its peers.

Over the last 35 years, Nippon Gene has focused on the health of humans, animals, plants, and the earth through its two business segments: research tools and diagnostic tools.

"We see ourselves as a *monozukuri* company. With

our distinct focus on craftsmanship within the biotech sphere, we believe we can utilize our Toyama factory and contribute to the advancement of the industry. That is the role we want to play," said Founder Yuko Yoneda.

Nippon Gene has formed a partnership with a company in Belgium and began selling its products in Europe. It is now interested in entering the U.S. market. ■

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Japanese schools welcome the world

In recent years, Japanese universities have stepped up their efforts to reaching out to the Asia Pacific region and beyond. Supported by Japan's highly industrialized economy, they have also expanded their role as a critical partner to development in other countries.

According to the Organization of Economic Development, as of 2012, 94 percent of foreign students in Japan came from Asia. So 2017 was significant because Japan universities opened new networks in booming regions of Southeast Asia, Central Asia, Africa and the Middle East.

Japan's global leadership in specialized manufacturing, healthcare and business has helped nurture an intellectually stimulating atmosphere, wherein students can acquire the communication, critical thinking and decision making skills needed in the 21st century.

Innovation through design

One area where Japan's leading edge shines is in engineering products.

The Advanced Institute of Industrial Technology was set up by the Tokyo municipal government in 2006 to offer a rigorous science education and to train its students on how to quickly apply fast-changing developments in information science and technology.

AIIT President Dr. Seiichi Kawata believes this interdisciplinary approach to information science and technology will further sharpen Japan's competitive edge in technological innovation.

"In 2008, AIIT established the Masters' Program for design and engineering in response to the rapid changes in the market, especially in terms of product design. We teach our engineers that human-centric design is just as important



Inside Linden Hall, which forms part of Japan's Tsuzuki Education Group

as superior build quality," Kawata explained.

"We keep close contact with Japan's industry leaders to listen to what they need and the challenges they face. Today, innovation no longer belongs to one person. Innovation becomes more possible with collaboration," he added.

World-class disaster and emergency response

Japan's geographic location makes the islands susceptible to natural disasters such as earthquakes and typhoons. Through the centuries, the country has developed survival techniques and now wishes to share the knowledge with other countries facing the same challenge.

"We hope that Nippon Medical School doctors will play a role in international

missions and in practical clinics. Across the region, we have shared our top-notch technology with countries that face the same challenges as Japan, such as natural and man-made disaster response. We deployed our team during the 2004 earthquake in Aceh, the 2008 Cyclone Nargis in Myanmar and the 2012 earthquake in Nepal," said Nippon Medical School President Dr. Akihiko Gemma.

"For us, the development of emergency medicine is important in order to respond to terrorist threats and natural disasters. Japan has hosted and will host some of the world's most significant events, such as the G-7 summit in 2016 and the Olympic Games in 2020. Because of our strengths in emergency re-



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sponse, the Nippon Medical School Hospital is the most important hospital in Japan, so we must develop this system in order to respond to these challenges," Gemma also said.

More than medical pioneers

Established in 1907 by Dr. Ichigoro Nakahara, Nippon Dental University has established a reputation as a pioneer in the field of regenerative medicine. Having celebrated its 110th anniversary in 2016, NDU is looking towards the next century by taking on medicine's greatest challenge: how to regenerate parts of the human body.

And as the number of 65-year-olds and above is predicted to exceed 25 percent of the population by 2025, Japan is seeing the importance of geriatric medicine increasing. Ahead

of that demographic challenge, the number of dental treatments of elderly people especially, treatments of periodontitis and dental caries have been growing every year.

"Five years ago, NDU established the world's first dental pulp cell bank. We see a lot of potential in utilizing the stem cells derived from deciduous teeth (milk teeth) to cure various forms of illnesses. As countries face rapidly changing demographics, regenerative medicine will play a big role in maintaining quality of life," explained President Dr. Sen Nakahara.

NDU is Japan's largest dental school with more than 2,000 students, 1,000 teaching staff and 20,000 graduates. It also boasts several international partnerships, among them with the University of Michigan, University of Pennsylvania,

University of Maryland, University of Paris, and Mahidol University in Thailand.

But Nakahara sees a larger mission than just being medical pioneers: "Being the largest dental school in the world and developing the field of regenerative medicine, Nippon Dental University recognizes its obligation to society. We established the TAMA clinic in Tokyo, which is the only oral rehabilitation clinic in Japan meant to improve the oral health of elderly and handicapped patients. NDU has also established mobile clinics in Niigata Prefecture in order to reach populations with no access to dental care.

One region that is emerging popular among international students is along Japan's western coast.

Forming a new role in the future, Niigata Univer-

sity has stepped up efforts to deepen ties with its foreign partners and form new partnerships in Japan, East Asia, and the rest of the world.

"We are welcoming ever increasing numbers of foreign students wishing to study at Niigata University. Many of these international students see Niigata University as a cultural, academic and business hub for study in or about the East Asian Rim regions, and ultimately a gateway to East Asia and the world," said President Sugata Takahashi.

"We hope not only Japanese students, but also East Asian students and students from other areas of the world, will obtain the knowledge and skills they need for their future at Niigata University. Students and researchers alike can expect Niigata University

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NDU Logo was designed by famous
Italian designer
Giorgio Giugiaro



The Pioneer in "Life Dentistry"

The Nippon Dental University has changed the school and faculty names to include the words "life dentistry." Dentistry involves the study of life in general, and dental treatment involves medical treatment relating to life. For this reason, the word "life" was added to the school and faculty names. We sincerely believe that this will help to inspire students and dentists, and will encourage patients to have a fresh image of dentistry. We hope that this pioneering step will revolutionize the awareness of dentistry both in the world of dentistry itself and among patients.



The Nippon Dental University

School of Life Dentistry at Tokyo, <http://www.tky.ndu.ac.jp>
School of Life Dentistry at Niigata, <http://www.ngt.ndu.ac.jp>

to be a vibrant hub of academic activity," Takahashi said.

Nurturing global citizens

As the only national university in the prefecture, Mie University is committed to solving problems in rural areas around Japan. Because more than two-thirds of its graduates leave the area to seek work in larger cities, the university works closely with the local government, institutions and businesses to encourage its students to stay and contribute to the sustainable region's development.

"Young students play a very important role in Mie. To entice them to stay, we are revitalizing the system to ensure good education and quality research," President Yoshihiro Komada said.

The university has part-

nerships with more than 100 international schools across Asia, Africa and the rest of the world. It also has set up unique research institutes, such as Ninja Studies and Whale Research, which have attracted foreign students.

In recent years, Mie University opened several satellite offices to promote itself and strengthen cooperation with other universities and companies. By doing so, the school hopes to broaden the worldview of its students by teaching them about regions that are very different from theirs.

"We are fostering the future community leaders through this global education," Komada said.

Raising the profile of women

One of the aims of Abe-nomics is to increase the

role of women in the working world. In OECD's latest available statistics, 61 percent of women aged 24 to 34 did well above the OECD average (45%) and better than Japanese men of same age with the same level of education (56%).

But significant challenges remain to fully integrate women into working society. Japanese tertiary institutions are doing their part.

Sugiyama Jogakuen's 111-year history traces its roots as a sewing school for women. After the Second World War, the school became a full-fledged college with a new mission to equip women with skills and knowledge to meet the demands of the 21st century.

University President Kimio Morimune believes that the institution must expand its mission beyond education and become a huge contributor to the ongoing global debate over the evolving role of women in society.

Morimune noted: "Now more than ever, there's a need for action to create a bigger role for women in Japanese society. We can only attain clear visibility of Japan's future once women form part of that vision."

While the all-women school accepts a small number of international

students, it wants to partner with more universities abroad for student exchange programs.

"Our professors are our ambassadors. When foreign students come here, they enjoy the experience because the school takes very good care of international students and encourages them to interact with the locals and work together," he said.

Fast-forward Fukuoka

Due to a dynamic population and an aggressive focus to become a center of entrepreneurship, Fukuoka has attracted many young people, both Japanese and foreign. In fact, the city is home to more foreign students per capita than anywhere else in Japan. Fukuoka Women's University is one such university where foreign students get to experience Japan through its unique housing set up

Fukuoka Women's University opened its doors in 1923, as Japan's first public college and later, in 1950, became a full-fledged university. In addition to its broader mission of forming globally-minded students, the university does not neglect the nurturing of the heart."

President Tisato Kajiyama



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Nurturing Humanity

We have 7 undergraduate programs and 4 graduate programs. We have approximately 5,800 students enrolled, making us a leading women's university in Japan. Our aim is to foster a rich sense of humanity as the foundation of the students' knowledge, skills and to develop professionals to meet the needs of the society.



椋山女学園大学

has placed great importance on emotional intelligence or *kansei*, which means “sophisticated feelings” in Japanese. “High grades are important, of course. But we further equip our students to embrace a more globalized future by being aware of diversity. We are surely the only college in Japan to emphasize the importance of *kansei* in education and campus activities,” he explained.

While more than 70 percent of its students have experienced studies abroad, the university also introduced mixed nationality dormitories to further complement its efforts to internationalize the learning environment.

“The students not only learn English with their foreign peers but, through the shared housing set up, they live and breathe

the language. This transforms our students in so many ways, such as honing a spirit of nurturing and emotional intelligence,” Kajiyama said.

A global campus in Kobe

Ever since its foundation, Kobe International University has prioritized internationalization. As of 2017, around 28 percent of its freshmen were foreign students, while 10 percent of its Japanese students have joined overseas programs. To further raise those numbers, KIU has partnered with several international universities to allow its students to take fully-credited courses abroad.

“My idea of a global campus is to share our campus and academic programs with our worldwide partner universities. Thus, all the prospective students

can participate in them according to their needs. KIU’s aim is to grow together with our partners, learn from them, develop new programs and finally innovate a new era of global education,” President Yuki Shimomura said.

As KIU marks its 50th anniversary in 2018, Shimomura said the school will continue its internationalization program.

“Globalization is not new to us. In the next years, we hope to find more partners with whom we can grow and work together to create an actual ground for globalization,” he said.

Revitalizing Japan’s *shonin* spirit

The Kansai Region is the home of Japanese industrial giants, such as Panasonic. Composed of Osaka, Kyoto and Kobe, the region is a major trading hub and

traces its roots to Japan’s *shonin* or merchant class that propelled the country to rapid industrialization.

The Osaka University of Commerce has stayed true to its origins by creating an environment that is very conducive to molding Japan’s future leaders in trade and commerce.

“A large number of Japan’s CEOs came from our school, which reflects its reputation as a world-class institution. Moreover, as Japanese companies continue to expand overseas and in new markets, we invite students from these countries to experience Japan and learn the Japanese way of doing business. Doing so would enhance communication and would benefit regional development and partnerships with Japan,” President Dr. Ishiro Tanioka said. ■



神戸国際大学
TOWARD A
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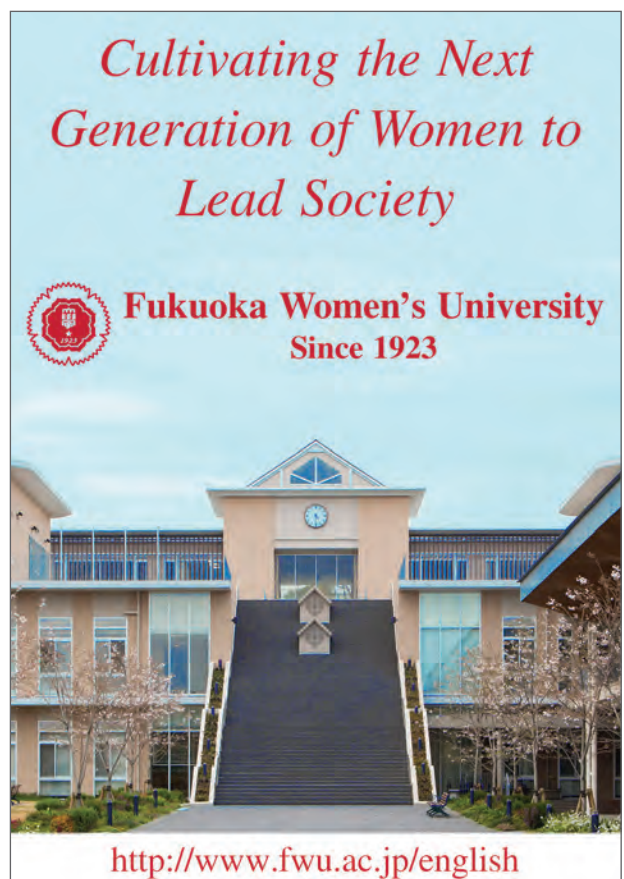
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Gateway to Asia, Gateway to the World

Across the Asia Pacific region, the flow of goods, people and ideas is growing at an increasing rate. Nowhere is this movement more pronounced than in the area of education.

In 2008, the Japanese government under Prime Minister Yasuo Fukuda launched the "300,000 Foreign Students Plan" campaign in order to attract more talent from abroad and spur innovation within the country. To date, Japan has about 216,000 and is on track to reaching its target.

Shifting demographics within Japan and increasing technological competition from its neighbors are some of the challenges that Japan is facing. Aware of the need to adapt to a fast changing world, the country's largest education group sees its schools as a crucial player in raising the country's living and working attractiveness.

For Tsuzuki Education Group Chancellor Kimiko Tsuzuki, the task of forming 21st century minds is both challenging and exciting: "Japanese society is at a crossroads. We need to ask: How do we welcome new talent? What ideas will propel Japan forward? At the same time, how can Japan's unique fusion of tradition and innovation impact the world?"

ORIGIN: FROM TRADITION

Composed of some 37 schools and campuses offering primary education until graduate level studies across the country, two philanthropic foundations, and supporting education in developing countries such as in Africa, the 60-year-old organization has evolved throughout the years to meet the needs of Japanese society. Today, the Tsuzuki Education Group aims for its universities to be both centers of excellence within the Asia Pacific region, and to contribute to the present and future needs of Japan.

Founded on its philosophy of "Training for Life through Development of Personality," Tsuzuki Education Group, as it faces new challenges in a fast-changing world, has adopted the principle of *Wakon Eisai* or "Japanese Spirit and Talented Scholar."

"It is about striving for constant learning and openness to the world without having to sacrifice what it is to be Japanese," Vice Chancellor Asuka Tsuzuki explained.

Six of its universities, for example, each specialize in pharmacology, economics, technology, and social and medical welfare. For pharmacology, what they uniquely offer are qualifications on traditional medicine and an education that fuses the best of Western and Eastern medicine. Graduates from the Yokohama, Daiichi, and Japan University of Pharmacology receive certification in western pharmacy and also have competent knowledge with traditional medicines.

"This reflects in a specific field the wider philosophy of the group to retain the best of Japanese traditional culture and combine it with the best practice and knowledge of the wider worlds."

Kimiko Tsuzuki also said: "We adopted this motto as the group celebrated its 60th year anniversary in 2016. It reflects the idea that globalization is not a one-way affair where Japan accepts simply innovation from the outside. Through Japan's social and economic advances, we think Japan's ancient culture can become a stabilizing influence throughout the region."

The number of the schools' overseas students reflects the international character of the group.

Over 5,000 foreign students from more than 30 countries consider Tsuzuki Education Group's schools their home in Japan, and they bring back the experiences they gained in Japan that benefit their home countries. "We make sure they receive the best support from our high caliber faculty, state-of-the-art facilities and prestigious international partnerships, such as those with our partners in Cambridge and Oxford universities," Kimiko Tsuzuki said.

For example, Japan University of Economics (JUE) sends its English language students and researchers to St. Anne's College in Oxford and Fitzwilliam College

between England and Japan, and marked the beginning of the relationship with St. Anne's College Oxford and Fitzwilliam College, Cambridge. With around 100,000 roses spread across 100,000 square meters, the English Garden is also, in a way, the physical manifestation of the *Wakon Eisai* spirit through the fusion of Western and Eastern design and approach.

One of Tsuzuki Education Group's most interesting and innovative projects that embodies "*Wakon Eisai*" is Linden Hall (LH). The school follows the Japanese curriculum but conducts its classes in English. The combined approach provides students with all the skills, language included, sought by any good IB World school, as well as a substantial foundation in their own language and culture such as Zen Buddhism. Many graduates of LH have been accepted to Ivy League schools in the United States, Russell Group universities in the UK, and top national and private universities in Japan.

Japan's elites have held on to the *bunbu-ryōdō* ethic, which values martial and cultural skills and achievement.

"We at Linden teach the various traditional arts with this very much in mind. At the same time, the students hone the language skills to acquire and contribute to knowledge around the world," she explained.



Tsuzuki Education Group Chancellor Kimiko Tsuzuki (left) and Vice Chancellor Asuka Tsuzuki

PROMOTING A UNIQUE CIVILIZATION

In his bestselling, critically acclaimed book "The Clash of Civilizations," Harvard professor Samuel Huntington accorded Japanese civilization a status unique from that of neighboring China.

The Tsuzuki Education Group established the Japanese Civilization Institute, whose fields of studies fall into five categories: Ideology, Philosophy and Ethics; Economy and Management; Industrial Art and Technology; Medicine; Politics and Religion. Its goal is to study Japanese civilization and pass it to people in and outside Japan.

By disseminating the conclusions of its studies, the group hopes to be making its own contribution to efforts to promote peace and development in Japan and the outside world.

DESTINATION: TO THE FUTURE

The 1964 Tokyo Olympics marked the rebirth of Japan as an economic power and technological pioneer as the event coincided with the inauguration of the *shinkansen* or bullet train, the world's first high speed train.

"The next Olympics in 2020 will happen at a time Japan sees itself as more comfortable and more confident in its role as a benevolent economic power. Through our *Wakon Eisai* philosophy, our students learn the value of individuality and independence and become more comfortable in welcoming change while being confident in Japan's perennial traditions as a force for good," Kimiko Tsuzuki said.

For Asuka Tsuzuki, the question about Japan's future is closely tied to how Japan molds the minds of its youth: "What is the future of Japan's universities? What kind of social space will make the students flourish in their own right? Forming independence has been our teaching principle for 60 years. We will enhance this through cutting edge innovation, new paradigms of learning and a fresh approach to the world." ■



Linden Hall



Yokohama University of Pharmacology

in Cambridge to learn English in its country of origin as part of its Research of Original Schools of English Program (ROSE).

Through the Tsuzuki Scholarship Program (TSP), the group has given some Oxford and Cambridge students the opportunity to study Japanese culture and language in Japan for a full year. In the 20 years since the program began, more than 200 students have benefitted from this opportunity, viewed as an effective cultural bridge between Europe and Japan.

In fact, situated in the JUE Campus is the English Garden, a symbol of partnership and friendship