Japan: Competitiveness in Academia and Industry — Introduction of twelve excellent cities

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Japan’s cities offer top-class settings for international conferences, boasting superior infrastructure including convention facilities, hotels and transportation systems, while also promising fascinating cultural experiences and delicious dining opportunities in safe urban environments. Moreover, high concentrations of academic and research institutions with advanced R&D capabilities and corporate clusters with superior technical skills give Japan particular advantages in hosting international meetings. Organizers who choose to hold events in Japan can anticipate that interaction with such academic institutions, research centers and corporations will provide conference participants with intellectual stimulation and create opportunities for innovation.

This booklet provides overviews of 12 Japanese cities that are leading venues for international conferences, profiling the characteristics and strengths of their local industries, highlighting fields of cutting-edge academic inquiry and research, and outlining industrial trends. We hope that this information will be useful to you when considering where to hold events, by giving you a better understanding of the diverse strengths and distinctive characters of these 12 cities, and their potential as convention settings.

It is our sincere wish that this booklet will help you and your clients to further enhance the value of your international conferences, encourage greater participation, and boost attendee satisfaction to even higher levels.

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Huge Industrial Clusters Support the Hosting of International Conferences

Japan has a wealth of potential corporate sponsors for international conferences, and it also has large numbers of researchers and business professionals to attend such events.

Japan’s GDP is the third largest in the world, at approximately US$4.9 trillion (2013 data, UN National Accounts Main Aggregates Database). The population of Japan is the 10th largest in the world, at around 127 million (2013 data, UN World Population Prospects).

Conversely, Japan ranks as the world’s 62nd largest country by land area, measuring approximately 380,000 km² (equivalent to about 4% of the land area of China or the United States, which each measure around 9.6 million km²). Japan also lacks oil, natural gas, and mineral resources such as iron.

Japan has achieved high GDP despite its small land area and lack of natural resources because it has many companies with advanced technologies and sophisticated systems, and these have formed highly developed industrial clusters.

12 Highly Distinctive Cities

In addition to a highly developed manufacturing sector and advanced technologies, Japan has enormous potential as a venue for a diverse range of international conferences.

Tokyo, Japan’s capital, is a prominent global center with a population exceeding 13 million. Many multinational corporations have offices in the city, which leads the world in various research fields. Tokyo has particular strengths in information/communications technology (ICT) and finance, providing crucial support services to Japan’s huge industrial clusters.

Japan also has many other mega-cities with populations above 1 million, each with its own distinctive industrial clusters. Japan is a world leader in many fields relating to manufacturing and cutting-edge technologies. Each of its regions hosts global corporations and a host of smaller enterprises to support them.

Nagoya, Yokohama and Hiroshima are major centers of automotive manufacturing, and each of these cities is home to a world-leading automaker.

The Japanese medical industry is one of the most well-developed in Asia. Tokyo and the major centers of Western Japan – Osaka, Kyoto and Kobe – all have major pharmaceutical companies and are centers of ground-breaking research and development. Other cities also have their own distinctive research strengths, with their universities playing key roles.

Making the most of its extensive farmland, Hokkaido (Sapporo), located in the far north of Japan, is characterized by bountiful agricultural and food processing industries.

Okinawa, in the far south of the country, boasts a warm climate and appealing beach resorts that draw large numbers of domestic and international tourists to the region. The leisure, tourism and sport industry also thrives in Chiba, adjacent to Tokyo, driven by the demands of the capital’s enormous population.

Fukuoka and Sendai are regional hubs for the extensive Kyushu and Tohoku areas, each of which has its own distinctive economy. These cities also act as centers of regional commerce.

Reading the radar charts:

- The figure shown is the total for each prefecture.
- Charts show the industrial profile of each city/prefecture compared to the Japan average.
- Figures exceeding 1.0 indicate a high concentration of that particular industry in the city/prefecture.

GRP: Gross Regional Product (in current yen)
Japan has three huge metropolitan areas centered on the cities of Tokyo, Osaka, and Nagoya. Each of these cities is closely interconnected with the economies and industries of surrounding areas, strongly connected urban area.

→ With Japan’s capital at its heart, Greater Tokyo encompasses Kanagawa, Chiba and Saitama prefectures. This metropolitan area boasts a population of approximately 37 million.

→ Greater Nagoya encompasses Aichi, Gifu and Mie, and has a population of about 11 million.

At around US$2 trillion, the GDP of Greater Tokyo is equivalent to those of Russia or Italy, and exceeds those of South Korea (approx. US$1.2 trillion) and Australia (approx. US$1.6 trillion). The GDP of Greater Osaka is about US$880 billion, equivalent to those of Indonesia or the Netherlands, while that of Greater Nagoya is around US$600 billion, equivalent to Switzerland or Argentina*.

*GDP Figures for the three metropolitan areas are taken from results of domestic surveys (prefectural economic accounts) conducted in 2012 and converted at the average US$ exchange rate for 2012. National GDP figures are from the IMF World Economic Outlook 2012.

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**Greater Tokyo**
The world’s largest metropolitan economy and population

The Greater Tokyo area consists of the capital and the surrounding areas of Kanagawa, Chiba and Saitama. According to the Brookings Institution, it has the largest metropolitan economy in the world, exceeding even that of Greater New York. Tokyo generates around one third of Japan’s GDP and has high concentrations of various industries, including ICT and finance. Many global companies are headquartered in the region.

Numerous domestic research institutes and renowned universities are located in Greater Tokyo, which has a vibrant research and development sector.

**Metropolitan GDP:** approx. US$2 trillion

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**Greater Osaka**
The hub of Western Japan, with a thriving medical industry

The Greater Osaka area is the hub of Western Japan, encompassing the region’s four major centers: Osaka, Kyoto, Hyogo and Nara. Pharmaceutical manufacturing and sales have long flourished in the region, which is home to the offices and factories of many domestic and multinational pharmaceutical companies. The medical industry is central to Kobe’s efforts to promote local industry.

Academic research in the medical field also thrives in the region, as exemplified by the achievements of Kyoto University, where a research group won a Nobel Prize in 2012 for research on iPS cells.

**Metropolitan GDP:** approx. US$880 billion

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**Greater Nagoya**
A key center of Japan’s world-renowned manufacturing expertise

Situated between Tokyo and Osaka, Greater Nagoya encompasses Aichi, Gifu and Mie Prefectures. It has particular strengths in manufacturing, the backbone of Japanese industry. Toyota Motor Corporation and its many affiliates lie at the heart of one of the world’s leading automotive industry clusters.

The region also has a high concentration of other high-added-value industries requiring advanced technologies, such as the aerospace and semiconductor industries.

**Metropolitan GDP:** approx. US$600 billion

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Note: Metropolitan GDP figures are not directly comparable with the GDP data listed on p.4, since they are drawn from different sources and years.
Asia’s Elite Clusters of Research Institutes

Japan boasts some of Asia’s most elite clusters of research institutes. Many cities have a particular focus on the medical field, including Tokyo, Osaka, Kyoto, Kobe and Fukuoka, all of which have high concentrations of research facilities and medical companies. Japan has strengths in molecular biology, genetics and immunology, and advanced research is being conducted in these fields all over the country. Numerous regions throughout Japan present appealing venues for international conferences, enabling organizers to offer attendees ideal environments for networking with researchers and institutes possessing cutting-edge technologies.

Japan also has some of the top research capabilities in Asia in a variety of other fields including biology and physics, where a wide range of advanced research is underway. Japan’s preeminent science and technology capabilities within Asia are driven by core R&D facilities, including tertiary institutions such as the University of Tokyo, Kyoto University and Osaka University, as well as a variety of research organizations such as The Japan Science and Technology Agency and RIKEN.

Japan takes pride in its world-class education system, which ranked number two in The Learning Curve 2014, a global education survey published by Pearson. Japan’s internationally acclaimed universities produce top-caliber graduates. The University of Tokyo was rated number one in Asia in the World University Rankings published by Times Higher Education. Other universities throughout the country also produce outstanding graduates who support Japan’s achievements in science and technology. Each of the 12 cities profiled in this report has its own universities acting as regional centers of research, development and education, creating high-quality educational and R&D environments nationwide.

Four Japanese research centers featured in the Asia-Pacific top ten in the Nature Publishing Index produced by Nature, which ranks the number of papers published by research institutes (data gathered between February 10, 2014 and February 9, 2015), evidence of the high-caliber personnel produced by universities and other research institutes.

Home to many of the leading research institutions and universities in Asia, Japan produces the outstanding people required to maintain and enhance its high-level science and technology capabilities, and to act as a driving force behind global research efforts in fields such as medicine, physics and biochemistry. This is one of the reasons that Japan maintains some of the best R&D capabilities in Asia, whilst remarkable economic growth is being achieved in southeast Asian countries, including Thailand and India.

Medical Paper Citations

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Systems and Facilities Supporting World-Class Education

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Nationwide Clusters of World-Leading Corporations

Japanese manufacturing has developed with a focus on automobiles and aircraft, fostering not only research centers, but also companies throughout the country that are at the top of their global industries and possess advanced capabilities in technology, R&D and production. Japan’s companies boast some of the most advanced R&D capabilities in Asia, as evidenced by high levels of R&D investment, patents granted and high-tech exports. They produce cutting-edge research results in a wide range of fields. Japanese corporations account for more than half of the top 50 “most admired companies” list for the Asia-Pacific region published by Fortune magazine.

These Asian corporate leaders are a major force behind the large number of international conferences held in Japan, acting as sponsors for such meetings and offering overseas visitors effective and appealing forums for information exchange, networking and exploration of business opportunities.

In addition to major corporate global leaders, Japan has many superb supporting companies acclaimed around the world for their high-quality products and services. The World Economic Forum Executive Opinion Survey 2014, which questioned more than 14,000 business leaders around the globe, ranked Japan’s supplier clusters number one in the world for both quantity and quality. Such companies have supported Japan’s flagship corporations with efficient production facilities and stable parts supply, enabling them to grow into world leaders, especially in manufacturing.

Moreover, Japan has many “global niche top” companies that have secured substantial shares of the world market in specific fields. According to Hermann Simon’s Hidden Champions of the 21st Century, Japan has 220 such companies. These companies have made a major contribution to the automotive industry and other core industries in which Japan has displayed international strengths, and have been a driving force behind Japan’s internationally acclaimed manufacturing prowess.

Corporate R&D Investment

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Domestic Supplier Numbers

Patents Granted (average 2009-2011)

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<th>Country/Region</th>
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Domestic Supplier Quality

Nobel Prize winners (physics, chemistry, medicine and economics)

Fortune Magazine’s “Most Admired Companies” in Asia-Pacific Region

Number of Companies in the Top 50 (2012)

Source: IMD World Competitiveness Yearbook 2013


Results of the World Economic Forum Executive Opinion Survey 2014, which questioned more than 14,000 business leaders
Respondents ranked the quantity and quality of domestic suppliers on a seven point scale
Japanese companies ranked top in the world for both quality and quantity
Sapporo (Hokkaido)

Set in a rich natural environment, this is one of Japan’s most thriving regions for agriculture, forestry, and fishing. In addition to these three industries, Sapporo boasts a pool of scientific and technical knowledge in fields such as medicine and organic chemistry. Hokkaido is also known as Japan’s largest winter resort region, hosting major events including the Sapporo Snow Festival.

International Access

<table>
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<tr>
<td>Bangkok</td>
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Hokkaido: Industry Profile

Hokkaido University and Sapporo Medical University have engaged in a variety of initiatives conducted jointly by industry, academia and government. The city takes pride in its world-class researchers, who include a winner of a Nobel Prize in Chemistry in the organic chemistry field at Hokkaido University.

Hokkaido has long been among the largest winter resort areas in Japan. In recent years it has developed into one of Asia’s premier international winter resort destinations, attracting large numbers of skiers, snowboarders and sight-seers from the Asia-Pacific region each winter.

The annual Sapporo Snow Festival held in February each year ranks among Japan’s top events and attracted around 2.35 million visitors in one week in 2015.

Regional Industries

With vast tracts of farmland and rich fishing grounds, Hokkaido & Japan’s largest and most flourishing area of agricultural, forestry and fisheries production.

The region has also used local fish and agricultural produce to develop food processing industries, which supply products throughout Japan and export to Asia and the rest of the world.

Hokkaido, the prefectural capital, is home to Hokkaido University. With a large number of researchers in fields relating to agriculture, forestry, fisheries, and food processing, the university is a key element of the regional economy’s intellectual infrastructure.

In recent years research in the fields of medicine, organic chemistry, and earth science has also flourished, and Sapporo institutions including Hokkaido University and Sapporo Medical University have engaged in a variety of initiatives conducted jointly by industry, academia and government. The city takes pride in its world-class researchers, who include a winner of a Nobel Prize in Chemistry in the organic chemistry field at Hokkaido University.

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Major Universities and Research Institutes

- Hokkaido University
- National Institute of Advanced Industrial Science and Technology Hokkaido
- Fisheries Research Agency
- NARO Agricultural Research Center
- Hokkaido Cancer Center
- Hokkaido University and Sapporo Medical University

Recent Trends in Regional Industry and Research in Sapporo and Hokkaido

Medicine: Psychiatry, Dementia Care, and Treatment of Lifestyle Diseases

Sapporo is home to a number of tertiary institutions actively engaged in medical and pharmaceutical research, including Hokkaido University and Sapporo Medical University. Many researchers have particular strengths in fields including psychiatry, diabetes and dementia care, and play core roles in supporting medical care in Sapporo.

Hokkaido University is a leader in the medical field, housing many research institutes and treatment centers, including the Translational Research and Clinical Trial Center, the Emergency and Critical Care Center, the Veterinary Teaching Hospital, and the College of Medical Technology.

Media Arts

Making the most of creativity exemplified in the cultural and artistic spheres, Sapporo has been promoting the “Sapporo Creative City” initiative to energize the city and stimulate the local economy.

Sapporo is a member of UNESCO’s Creative Cities Network, and was recognized as Asia’s first Media Arts City in 2013. This distinction has spurred the exchange of ideas, and joint projects with overseas members of the network, providing opportunities for human resource development and promotion of the content industry.

In recent years new initiatives have linked media arts with local culture and pastimes, for example by utilizing projection mapping to stage shows at the Sapporo Snow Festival.

Environment and Energy

In 2008 Sapporo declared itself an eco-capital. The annual Sustainability Weeks program led by Hokkaido University features conferences and symposiums involving a range of domestic and international research institutes. Greener Week in Sapporo, which took place in 2014, was a joint initiative by industry, academia and government to encourage the hosting of environmental meetings and publicize opportunities for green MICE events.

In 2013 Sapporo jointly hosted an international symposium on the theme of the environment and energy with its sister cities Novosibirsk (Russia) and Daejeon (South Korea). Attendees took a proactive approach to promoting the environmental and energy industries, engaging in lively debate on topics including prospects for harnessing these industries to revitalize regional economies and the need for joint industry-academia-government projects.

Main Convention Center in Sapporo

Sapporo Convention Center

- Maximum capacity: 2,500 (Main Hall 2,607m²)
- Access: 50 minutes by car from New Chitose Airport

International Conferences Held in Sapporo

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<td>approx. 3,300</td>
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<td>2011 Congresses of the International Union of Microbiological Societies (IUMS)</td>
<td>September 2011</td>
<td>Attendees: approx. 3,000</td>
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<tr>
<td>16th International Microscopy Congress</td>
<td>September 2006</td>
<td>Attendees: approx. 2,300</td>
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Sendai (Miyagi Prefecture)

Sendai is at the heart of the Tohoku region's largest business zone, with a focus on agriculture, forestry, fishing and commerce. A host of research institutes affiliated with Tohoku University collaborate with the private sector and local government on a variety of projects. Sendai has been a key center for promoting recovery following the Great East Japan Earthquake.

Regional Industries

The largest business center in the Tohoku region, Sendai has developed with a focus on agriculture, forestry, fishing and commerce. It lies at the heart of one of Japan's leading rice-growing areas, with a thriving agricultural sector producing vegetables and fruit. The region is also known for livestock farming, which produces high-quality Sendai beef and other delicacies. Its proximity to the Sanriku coast, one of the best fishing grounds in the world, drives a flourishing fishing industry that harvests a variety of seafood.

Inland areas have clusters of secondary industries related to agriculture, forestry and fisheries, including food and seafood processing as well as electrical machinery manufacturing. Coastal areas are home to companies engaged in sectors including oil, coal, steel and pulp. Sendai is the commercial hub of the region, with an international commercial port and airport attracting container vessels and regular flights. Most imports and exports from other ports and airports in Miyagi pass through Sendai.

Sendai is also home to Tohoku University, one of leading centers of learning and research in Japan. The university boasts an array of regional educational and research institutes in a variety of fields, including the Clinical Research, Education and Innovation Center, the Institute for Materials Research, the Center for Integrated Nanotechnology Support, and the International Research Center for Nuclear Materials Science.

Tohoku University is the focal point of vibrant medical R&D activity. It devotes significant effort to the medical field, for example by collaborating with the prefectural and municipal governments as well as the business community in the aim of making the region a center for medical device development.

International Access

- Seoul: 4 flights a week
- Shanghai: 2 flights a week
- Taipei: 4 flights a week
- Guam: 4 flights a week
- Honolulu: 3 flights a week
- Beijing: 2 flights a week
- Tokyo: 3 flights a week
- Kuala Lumpur: 3 flights a week
- Hong Kong: 4 flights a week
- Seoul: 4 flights a week

Major Universities and Research Institutes

- Tohoku University
- Institute for Materials Research, Tohoku University
- Clinical Research, Education and Innovation Center, Tohoku University Hospital
- National Institute of Advanced Industrial Science and Technology, Tohoku RIKEN Sendai Facility

Miyagi Prefecture: Industry Profile

- Agriculture, forestry, fisheries & food
- Electrical Machinery & automotive
- Chemicals & materials
- Leisure, tourism & sport
- Commerce
- ICT

Key Facts

Miyagi Prefecture
Population: approx. 2.33 million
GRP: approx. 104 billion (US$)

Sendai City
Population: approx. 1.07 million
GRP: approx. 54 billion (US$)

Recent Trends in Regional Industry and Research in Sendai and Miyagi Prefecture

Medicine: Medical Equipment

Tohoku University, Miyagi Prefectual Government, Sendai City, and the Tohoku Economic Federation are taking the lead in initiatives aimed at making the region a center for the production of medical equipment. Tohoku University is playing a core role in the project and has established Japan's only Graduate School of Biomedical Engineering. Using its wealth of research seeds in the medical equipment sector, it is building strong ties with industry, other academic institutions, government and finance, with a view to making the region a center for development and production of medical equipment.

At the same time, the university is collaborating with the business and finance communities to attract domestic and international companies to the region in the aim of creating employment and a medical equipment industry cluster.

Manufacturing

In recent years prominent Japanese manufacturers including Toyota and Tokyo Electron have set up factories and other facilities.

Sendai has implemented a range of initiatives to promote ties between industry and academia, including efforts to strengthen the manufacturing SMEs that support the regional economy, enhance research techniques and development capabilities with a view to creating new industries, and conduct tasks that utilize the intellectual resources of universities.

Another joint industry-academia initiative aims to create a microelectromechanical systems (MEMS) cluster. It has established a MEMS Park consortium and is working to develop such a cluster in Sendai in collaboration with partners including Fraunhofer-Gesellschaft of Germany.

Disaster Prevention and Disaster Risk Reduction

As part of recovery efforts following the Great East Japan Earthquake, Sendai is focusing on the fields of disaster prevention and disaster risk reduction.

Tohoku University’s International Research Institute of Disaster Science is leading various research and development projects related to disasters and their prevention.

R&D initiatives aim to shape practical disaster science, and projects are under way in a wide range of fields including disaster risk, regional and urban revitalization, disaster science, disaster medicine, and information management.

In March 2015 Sendai hosted the 3rd World Conference on Disaster Risk Reduction.

Main Convention Center in Sendai

Sendai International Center
- Maximum capacity: 2,560 (Exhibition Hall)
- Access: about 30 minutes by train from Sendai Airport (once the Tozai subway line opens)

International Conferences Held in Sendai

- 3rd World Conference on Disaster Risk Reduction, March 2015. Attendees: approx. 6,500
- 14th International Association of Colloid and Interface Scientists Conference, May 2012. Attendees: approx. 1,050
- World Travel and Tourism Council 12th Global Summit, April 2012. Attendees: 1,200
Chiba (Chiba Prefecture)

Chiba is famous for offering a rich natural environment within the Greater Tokyo Area region. With excellent airport access, it attracts large numbers of foreign tourists. The region also boasts numerous universities and research institutes, with particular strengths in medicine, robots and space engineering.

Regional Industries

With a temperate climate and rich natural environment, Chiba is one of Japan’s leading agricultural prefectures and achieved the country’s third-highest agricultural production in fiscal 2013. It is Japan’s top producer of many crops, including daikon (Japanese radish) and edamame (green soybeans). Largely surrounded by sea, the region has a flourishing fishing industry that boasts Japan’s biggest catches of sardines and Japanese sea bass. Tokyo Disneyland, one of Japan’s largest leisure facilities, is located in Chiba Prefecture. Indisputably the nation’s most popular theme park, in fiscal 2013 it attracted around 31 million visitors, three times the number visiting Japan’s second-largest amusement park.

Narita Airport and several ports are also situated in Chiba Prefecture, providing excellent international access. For this reason, large-scale logistics centers and the headquarters of major domestic retailers are located in the prefecture.

Chiba is home to many universities with strengths in science and engineering, including Chiba University, the University of Tokyo Kashiwa Campus, Nihon University facilities, and the Chiba Institute of Technology. In addition to a range of industries, it has attracted high-quality research institutes, including many medical research centers. As well as Chiba University and Toho University’s Funabashi facilities, these include independent administrative institutions in the medical field, such as the National Institute of Radiological Sciences and National Cancer Center facilities.

Chiba Prefecture: Industry Profile

Key Facts
Chiba Prefecture
Population: approx. 6.19 million
GRP: approx. 236 billion (US$)
Chiba City
Population: approx. 0.97 million
GRP: approx. 44 billion (US$)

Recent Trends in Regional Industry and Research in Chiba

Medicine: Radiology and Cancer Treatment

In addition to National Cancer Center facilities and the National Institute of Radiological Sciences, Chiba has many university facilities focusing on medicine, including those of Chiba University, Toho University’s Funabashi facilities, the Nihon University Funabashi Campus and the University of Tokyo Kashiwa Campus.

Chiba City’s Inohana Innovation Plaza, a center for innovative medical projects involving collaboration between industry and academia, has attracted many companies.

Chiba University Science Park Center (CSPC) provides another forum for industry-academia collaboration. Focusing on medical engineering, CSPC matches university research seeds with companies’ technical needs.

Robotics

Chiba has formulated a Science City Strategy to publicize its science and technology capabilities.

World-class robotics research is being conducted in the region, notably at Chiba University, the Chiba Institute of Technology (CIT), the Nihon University Funabashi Campus, and the University of Tokyo Kashiwa Campus.

Together with medical engineering, robotics is another field of focus for CSPC, where joint industry-academia initiatives are under way. Impressive research is being conducted on field robots such as disaster response robots and unmanned aerial vehicles (UAV), and CIT is leading initiatives in satellite and space engineering. CIT is a pioneer in these fields and has several faculties and research centers devoted to robotics, including the Department of Advanced Robotics, the Future Robotics Technology Center, and the Planetary Exploration Research Center.

Logistics

Many logistics centers are located in Chiba, together with corporate offices including the headquarters of Aeon, one of Japan’s largest retailers.

Taking advantage of its proximity to both airports and ports, Chiba attracts companies by publicizing itself as “the closest city to the world.” The Chiba Industry Advancement Center works toward infrastructure development and deregulation with a view to creating a logistics industry cluster in the region.

Main Convention Center in Chiba
Makuhari Messe
Maximum capacity: 1,600 (Convention Hall 1,390m²)
Access: 30 minutes by Limousine Bus from Narita International Airport

International Conferences Held in Chiba
99th Annual Kiwanis International Convention, July 2014. Attendees: approx. 3,000
Millen Dollar Round Table (MDRT), April 2008. Attendees: approx. 6,000
18th International Congress of the Asian Confederation for Physical Therapy (ACPT), September 2008. Attendees: approx. 1,500

International Access

Dubai: 14 flights a week
Frankfurt: 35 flights a week
London: 37 flights a week
New York: 42 flights a week
Beijing: 76 flights a week
Shanghai: 91 flights a week
Singapore: 98 flights a week
Hong Kong: 101 flights a week
Seoul: 182 flights a week

Chiba Prefecture: Industry Profile

Major Universities and Research Institutes

Chiba University
University of Tokyo Kashiwa Campus
National Institute of Radiological Sciences
Chiba Medical Center
JOGMEC Technology and Research Center

Image courtesy of Chiba Prefecture

Image courtesy of National Institute of Radiological Sciences

Image courtesy of Narita International Airport Corporation

Image courtesy of The Mainichi Newspapers Co., Ltd./Aflo

Image courtesy of National Institute of Radiological Sciences

Image courtesy of Chiba Prefecture

Image courtesy of Chiba Prefecture
Tokyo: Industry Profile

Regional Industries

The GRP of Tokyo alone accounts for approximately 19% of Japan’s GDP. Taking into account the greater metropolitan area (total GRP for Tokyo and Kanagawa, Saitama and Chiba Prefectures), this figure rises to approximately 34%, clearly illustrating the central role that the Tokyo region plays in business and R&D.

The head offices of many Japanese companies are located in Tokyo, including the headquarters of 41 corporations listed in the Fortune Global 500 (2014). The finance industry is particularly prominent in the city, which is home to the Tokyo Stock Exchange (the exchange with the highest market capitalization in Asia) and the head offices of many Japanese banks, securities companies and insurance companies, as well as offices of numerous foreign financial institutions.

Tokyo is also the preeminent center in Japan for ICT industries, including information services and media. In terms of both scale and quality, Tokyo has an impressive array of universities and institutes conducting research at the highest levels in Asia across a wide range of fields. These include the University of Tokyo and the Tokyo Institute of Technology, which specializes in engineering.

In the aim of becoming the world’s most business-friendly city, in recent years Tokyo has strived to attract the Asian headquarters of global corporations and undertake urban development projects that will meet the needs of foreign business people working in such companies.

Major Universities and Research Institutes

- University of Tokyo
- Tokyo Medical and Dental University
- Tokyo Institute of Technology
- Keio University
- Waseda University
- Pharmaceutica l s and Medical Devices Agency
- Japan Aerospace Exploration Agency
- National Institute of Advanced Science and Technology
- National Institute of Information and Communications Technology
- National Institute of Basic Biology
- National Institute of Polar Research
- National Institute of Environmental Studies
- National Institute of Advanced Industrial Science and Technology
- National Institute of Technology and Evaluation

Key Facts

- Population: approx. 13.3 million
- GRP: approx. 1,137 billion (US$)

Recent Trends in Regional Industry and Research in Tokyo

Medicine: Drug Discovery and Life Sciences

The area around Tokyo Station, a key business center, has a high concentration of medical firms, especially high-added-value drug discovery companies. Tokyo Metropolitan Government (TMG) is working to develop a hub for drug discovery and other life sciences activities around Tokyo Station, gather human resources and information in this area, and promote the identification, selection and commercialization of basic research outcomes (research seeds).

TMG is also facilitating the creation and growth of venture companies in the life sciences field by securing space for start-ups utilizing private-sector incubation facilities and providing assistance for PR efforts such as participation in exhibitions.

Finance: Tokyo International Financial Center Concept

In the aim of developing Tokyo into an international financial center rivaling New York or London, TMG is energizing forums for the exchange of information between investors and businesses, and working to attract and organize conferences gathering players in the global finance industry.

To realize this international financial center concept, TMG is (a) creating a business-friendly environment for overseas companies, (b) devising mechanisms to attract domestic and international funds, (c) encouraging expansion from savings into other financial products, and (d) promoting human resource development. In conjunction with these four initiatives, TMG plans to ease regulations and introduce tax incentives by 2020.

Energy: Towards a Hydrogen Society

TMG is taking the 2020 Tokyo Olympics and Paralympics as an opportunity to aim for the rapid realization of a hydrogen society, for example by utilizing hydrogen energy in the athletes’ village.

TMG also plans to subsidize expenses associated with introducing fuel cell vehicles and building and operating hydrogen fuelling stations. It has set targets for Tokyo of 6,000 fuel cell vehicles by 2020 and 100,000 by 2025, and 35 hydrogen fuelling stations by 2020 and 80 by 2025.

SME Clusters

Tokyo has high concentrations of SMEs with advanced technical capabilities, especially in the central city, the coastal engineering zone, and the west of the city. In recent years SMEs have moved in new directions, including joint research projects with universities and other institutes, and development of overseas sales channels.

Several Tokyo SMEs have unique technologies and products that make them global niche top players with the largest share of the global market in their fields. Such companies help to underpin Tokyo’s international competitiveness.

International Conferences Held in Tokyo

- International Bar Association Annual Conference, October 2014. Attendees: approx. 5,000
- Annual Meetings of the International Monetary Fund and World Bank, October 2012. Attendees: 20,000
- ITS World Congress 2013, October 2013. Attendees: approx. 21,000

Regional Industries

- ICT
- Agriculture, forestry, fisheries & food
- Chemicals & materials
- Electrical machinery & automotive
- Leisure, tourism & sport
- Finance
- Medicine
- Commerce

International Access

- Seoul: 182 flights a week
- Hong Kong: 101 flights a week
- Singapore: 98 flights a week
- Shanghai: 91 flights a week
- Beijing: 76 flights a week
- New York: 42 flights a week
- London: 37 flights a week
- Paris: 50 flights a week
- Frankfurt: 35 flights a week
- Tokyo: 29 flights a week
- Dubai: 14 flights a week

Recent International Conferences Held in Tokyo

- 22nd World Conference on Textiles & Clothing, August 2014.
- 25th World Conference on Lung Biology, August 2014.
- 5th World Conference on Social Sciences, August 2014.
Creating a Smart City.

Known for its environmentally conscious policies, Yokohama has implemented comprehensive initiatives aimed at reducing its environmental footprint. The city has developed a smart city project (YSCP), a large-scale trial of smart services from 2009. The project focuses on reducing garbage volumes by 40% over six years, raising public awareness of energy use, and promoting a renewable energy initiative. Yokohama has been recognized as an ‘Eco2 Cities’ initiative, and it is one of the world’s smartest cities.

Regional Industries

Kanagawa Prefecture is the second-largest prefecture in Japan, situated immediately to the south of Tokyo. It has a population of around 3.7 million, making it Japan’s second-largest city. Kanagawa Prefecture is a major player in the regional industrial landscape, with a large concentration of electrical machinery and automotive manufacturers. As businesses have evolved in recent years, manufacturing plants have been joined by R&D facilities and mother factories for global operations. Thanks to local government policies promoting the incorporation of foreign cultural influences, Kanagawa has long been a driver of economic development in Japan.

International Access

<table>
<thead>
<tr>
<th>City</th>
<th>Flights per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seoul</td>
<td>182</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>101</td>
</tr>
<tr>
<td>Singapore</td>
<td>98</td>
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<tr>
<td>Shanghai</td>
<td>91</td>
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<tr>
<td>Beijing</td>
<td>76</td>
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<tr>
<td>New York</td>
<td>42</td>
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<tr>
<td>London</td>
<td>37</td>
</tr>
<tr>
<td>Paris</td>
<td>50</td>
</tr>
<tr>
<td>Frankfurt</td>
<td>35</td>
</tr>
<tr>
<td>Dubai</td>
<td>14</td>
</tr>
</tbody>
</table>

Major Universities and Research Institutes

Yokohama City University
Yokohama National University
Keio University
Tokyo Institute of Technology
Japan Agency for Marine-Earth Science and Technology
RIKEN Yokohama Fisheries Research Agency

Nissan Motor Corporation, one of the world’s leading automakers, is headquartered in Yokohama. Many businesses and researchers belong to the Yokohama Kanagawa Bio-Business Network administered by the Kihara Memorial Yokohama Foundation, which acts as a platform for sharing information on the latest research results and business activities.

Smart Cities

The Yokohama Smart City Project (YSCP), a large-scale trial of a community energy management system, has been under way since 2010 with a view to achieving a low-carbon society. As well as promoting more effective energy management by households, office buildings and factories, Yokohama aims to reduce city-wide energy usage by introducing renewable energy and encouraging energy users to limit consumption.

In 2009 the World Bank selected Yokohama as one of six ecologically aware cities named in its “Eco Cities” initiative, recognizing the city’s success in reducing garbage volumes by 40% over six years through public awareness-raising.

To communicate such low-carbon-society initiatives to the world, Yokohama advises overseas cities on urban development and proactively shares its knowledge by hosting forums such as the Asia Smart City Conference.

Main Convention Center in Yokohama

Pacifico Yokohama
Maximum capacity: 5,002 (National Convention Hall)
Exhibition Hall: 20,000m²
Access: 20 minutes by car from Haneda International Airport, 90 minutes by train from Narita International Airport

International Conferences Held in Yokohama

18th APEC Economic Leaders Meeting, November 2010. Attendees: approx. 10,600
5th Tokyo International Conference on African Development, June 2013. Attendees: approx. 5,000
Automobiles and Transportation Systems

The headquarters of Toyota Motor Corporation, one of the biggest automakers in the world, are in Toyota-city, approximately one hour from Nagoya. Many Toyota group companies are also located in Aichi Prefecture, forming one of the world’s preeminent automotive manufacturing clusters.

This region was the birthplace of the hybrid vehicle technology that sparked the eco-car boom, and leads the world in research, development and commercialization of fuel cell vehicles, regarded as the ultimate in environmentally friendly automobiles.

In the aim of creating a low-carbon city, since 2010 the automotive industry has been collaborating with electric power companies, electric machinery manufacturers, local governments and other interested parties to construct next-generation transportation systems and conduct large-scale trials of personal mobility schemes.

Aircraft

The region is known as a leader in the Japanese aircraft industry, and is home to many companies producing aircraft parts and materials. Structural parts produced in the region are also used in aircraft assembled overseas.

The Mitsubishi Regional Jet (MRJ), Japan’s first small jet aircraft and the subject of global aircraft industry interest, was also developed in the region. In 2014 Aeromart Nagoya, an international convention for the aircraft industry, was held – the first time the event had taken place in Japan.

Medicine: Medical Equipment Manufacturing

Utilizing extensive local manufacturing expertise, development of medical equipment is flourishing in Nagoya.

Denso, a major supplier of vehicle parts to the Toyota Group, is adapting automotive production line control technologies to develop surgical support robots.

The region is also home to SMEs that possess top-class technologies, such as Nidek Co., Ltd., which produces several ophthalmological devices boasting a No.1 global market share.

Ceramic Products

The ceramic industry has a long history in Aichi Prefecture, and several major manufacturers of ceramic products are based in the region.

These companies utilize techniques derived from ceramic production to create semiconductor and electrical components. For example, their ceramic products are used in particular filters for automotive exhaust gases.

Recently enterprises with strengths in storage battery technologies, which are essential to more efficient energy usage, have grown in the region, and their products are being used in the large-scale trials mentioned above.

Recent Trends in Regional Industry and Research in Nagoya and Aichi Prefecture
Kyoto (Kyoto Prefecture)

Kyoto was Japan’s capital for more than 1,000 years until the mid-19th century, and is thus sometimes referred to as “the thousand-year capital”. While Kyoto is famed worldwide as a tourist destination, it also has another side as a center of commerce and industry, boasting many companies with state-of-the-art technologies. Kyoto University and many other universities located in the city conduct advanced research and development.

Key Facts

Kyoto Prefecture
Population: approx. 2.62 million
GRP: approx. 121 billion (US$)

Kyoto City
Population: approx. 1.47 million
GRP: approx. 76 billion (US$)

International Access (from Kansai International Airport)

- Seoul: 121 flights a week
- Hong Kong: 75 flights a week
- Singapore: 29 flights a week
- Shanghai: 28 flights a week
- Paris: 7 flights per week
- Frankfurt: 7 flights a week
- Dubai: 7 flights a week

Major Universities and Research Institutes in and around Kyoto

- Kyoto University
- Kyoto Institute of Technology
- Kyoto City University of Arts
- Doshisha University
- Ritsumeikan University
- Advanced Scientific Technology & Management Institute of Kyoto
- Kyoto Municipal Institute of Industrial Technology and Culture
- International Research Center for Japanese Studies

Regional Industries

Packed with historical buildings and tangible and intangible cultural assets, Kyoto is most commonly associated with tourism, but it also has one of Japan’s leading manufacturing clusters.

As Japan’s capital for more than 1,000 years, Kyoto was the political and cultural heart of the nation, and traditional industrial techniques developed over the course of this long history have deep roots in the city. Even today, those traditional industrial techniques form the foundations of many global corporations and high-added-value industries located in the city.

For example, the competitiveness of Kyoto’s modern-day industries has been boosted by the application of traditional pottery firing techniques to the ceramics industry, brewing techniques to biomedicine, and fabric-dying and processing techniques to technologies for manufacturing semiconductors, printed circuit boards, and pharmaceuticals.

A particular feature of Kyoto’s industrial scene is the high concentration of precision machinery makers, and many of these companies are global suppliers of high-added-value products and components in a wide range of fields including medicine, environmental industries and aircraft manufacturing.

Content industry clusters are another of Kyoto’s leading industries, and the world-leading video game hardware and software corporation Nintendo has its headquarters in the city.

Kyoto Prefecture: Industry Profile

<table>
<thead>
<tr>
<th>Industry</th>
<th>Share of GRP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronics</td>
<td>24.6%</td>
</tr>
<tr>
<td>Machinery</td>
<td>13.8%</td>
</tr>
<tr>
<td>Electrical</td>
<td>7.9%</td>
</tr>
<tr>
<td>Machinery &amp; automotive</td>
<td>4.6%</td>
</tr>
<tr>
<td>Agriculture, forestry, fisheries &amp; food</td>
<td>4.2%</td>
</tr>
<tr>
<td>Chemicals &amp; materials</td>
<td>3.6%</td>
</tr>
<tr>
<td>ICT</td>
<td>3.1%</td>
</tr>
<tr>
<td>Commerce</td>
<td>2.0%</td>
</tr>
<tr>
<td>Leisure, tourism &amp; sport</td>
<td>1.4%</td>
</tr>
<tr>
<td>Finance</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

Medicine: Life Innovation

The Kyoto municipal government works to promote life science industries, placing priority on mobilizing local resources for initiatives in the areas of next-generation medical care, health, welfare and nursing.

Kyoto has a high concentration of universities and research institutes producing outstanding research results as well as companies with advanced technological capabilities. Among these organizations is Kyoto University, employer of Professor Shinya Yamanaka, who won the Nobel Prize in Physiology or Medicine in 2012 for his work on iPS cells, which have a number of promising applications in regenerative medicine. Kyoto University focuses particularly on commercializing the results of its research, collaborating with pharmaceutical companies, medical equipment makers and other manufacturers throughout Japan to develop innovative drugs and cutting-edge medical devices.

Environmental Industries: Green Innovation

The Kyoto municipal government is working to foster the promising growth field of green (environment and energy) business as one of the city’s leading industries.

For example, a joint university-corporate project is developing products using silicon carbide (SiC) devices developed and supplied by a local semiconductor manufacturer, with a view to promoting widespread use of SiC, which is expected to feature in next-generation energy-saving semiconductors.

Tourism and Culture

With its long history, Kyoto is renowned as a city harboring some of the richest cultural traditions in the world. Around 2,000 Shinto shrines and Buddhist temples are located in the city, 17 of which were listed by UNESCO as world cultural heritage sites in 1994 under the heading Historic Monuments of Ancient Kyoto.

In addition to preserving its traditional culture and arts, Kyoto promotes manga and other content industries. The city boasts many unique local resources including a set of picture scrolls called Chōjū-giga, a national treasure reputed to be Japan’s oldest manga, and the Kyoto International Manga Museum, Japan’s first repository of manga culture.

Kyoto’s strengths and charms as a city of tourism and culture are acclaimed worldwide, and the US travel industry magazine Travel + Leisure ranked Kyoto as the No.1 city in its World’s Best Awards in 2014.

Main Convention Centers in Kyoto

Kyoto International Conference Center
Maximum capacity: 2,000 (Main Hall 2,040m²)
Access: about 100 minutes by train from Kansai international Airport, and around 20 minutes by train from Kyoto station, served by the Shinkansen bullet train

International Conferences Held in Kyoto

- APEC Finance Ministers’ Meeting, November 2010.
- International Congress of Physiological Sciences (IUPS), July-August 2009.
  Attendees: approx. 4,100
  Attendees: approx. 9,300

Recent Trends in Regional Industry and Research in Kyoto and Kyoto Prefecture
Osaka (Osaka Prefecture)
Osaka has prospered as a major commercial center since ancient times, acting as a hub for domestic and international trade and cultural exchange. Merchants from all over Japan gathered in the city, setting up the world’s first commodity futures exchange and making Osaka the center of the Japanese economy, dubbed “the kitchen of Japan”. Today Osaka remains the largest city in Western Japan, and many corporations, universities and research institutes are situated in this regional hub.

Key Facts
Osaka Prefecture
Population: approx. 8.85 million
GRP: approx. 455 billion (US$)
Osaka City
Population: approx. 2.67 million
GRP: approx. 231 billion (US$)

Regional Industries
In the center of Osaka is a district known as Kusu no machi (medicine town). Since the Edo period (1603-1868), drug makers from around Japan have gathered in this area, which grew into a national hub of pharmaceutical manufacturing and distribution. Today it is home to the headquarters of several of Japan’s leading pharmaceutical manufacturers.

This historical background led to the establishment of many pharmaceutical research centers in and around Osaka, which have forged links with nearby universities and other institutions to create a thriving research and development environment. As the radar chart below shows, the depth of this cluster gives Osaka the highest medical industry weighting of the chart below shows, the depth of this cluster gives Osaka the highest medical industry weighting of the sector in this region, leading the Japanese pharmaceutical sector to develop products including drugs.

Osaka Prefecture: Industry Profile

International Access
(from Kansai International Airport)
Seoul: 121 flights a week
Hong Kong: 75 flights a week
Singapore: 29 flights a week
Shanghai: 94 flights a week
Beijing: 28 flights a week
Paris: 7 flights week
Frankfurt: 7 flights a week
Dubai: 7 flights a week

Major Universities and Research Institutes in and around Osaka
Osaka University
Osaka Kyoritsu University
National Institute of Biomedical Innovation
AIST Kansai
Technology Research Institute of Osaka Prefecture

Recent Trends in Regional Industry and Research in Osaka and Osaka Prefecture

Medicine: Regenerative Medicine and Rehabilitation
As well as being the site of Japan’s first heart transplant, Osaka University is one of the country’s leading surgical research institutes, specializing in advanced fields such as organ transplant and culture. Osaka University’s Institute for Protein Research is one of Asia’s core protein research centers. The institute attracts researchers in medicine, chemistry, physics and biology from throughout Japan and around the globe to undertake some of the world’s most ground-breaking research in this field.

Leveraging its strong ties with pharmaceutical companies, Osaka University’s Center for Drug Discovery, Design, and Development engages in practical, efficient drug discovery research and develops new processes for every stage of drug discovery from searching for the seeds of new drugs to clinical trials.

Engineering and Robotics
Osaka University’s engineering research ranks among the best in Japan, and in recent years robotics research has also flourished. Covering a wide range of fields from communications to materials development, this research extends to development of humanoid robots including intelligent robots capable of communicating naturally with humans.

Higashiosaka, adjacent to Osaka, has a high concentration of SMEs that support a broad range of industries. Many of these SMEs possess advanced technologies and are domestic leaders in terms of both scale and quality.

The technical capabilities of these companies are world-class. In 2002 several Higashiosaka SMEs teamed up to begin independent development of an artificial satellite, which they succeeded in launching in 2009. Following on from that project, in 2010 they took up the challenge of developing a humanoid space robot.

These types of initiatives make Osaka and the surrounding areas one of Asia’s most advanced centers of manufacturing excellence.

New Energy
Clusters of electrical machinery and materials manufacturers in and around Osaka attract companies working on every stage of new energy development, from basic research to commercialization. A vibrant new energy industry is now growing up in Osaka, making the most of these industry clusters to develop products including solar panels and batteries.

Since 2014 the Battery Strategy Research Center in the Osaka Bay area has been conducting cutting-edge research in areas such as lithium ion batteries and hydrogen grids.

Recent Conferences

Main Convention Center in Osaka
Osaka International Convention Center
Maximum capacity: 2,754 (Main Hall)
Access: about 70 minutes by train from Kansai International Airport, and around 5 minutes by train from Osaka station

International Conferences Held in Osaka
Annual SWAT Conference and Exhibition (SIBOS 2012), October-November 2012.
Attendees: approx. 6,200

World Congress of the Junior Chamber International (UCJ), November 2010.
Attendees: approx. 9,400

Annual Convention of Rotary International, May 2004. Attendees: approx. 27,000

Image courtesy of Yomiuri Shimbun/Aflo

The “SOHLA-1” microsatellite

Image courtesy of Yomiuri Shimbun/Aflo
Kobe (Hyogo Prefecture)

The city of Kobe developed alongside its port, which played a key role in Japan’s modernization. In addition to heavy industries such as shipbuilding and steel-making, Kobe is home to a wide range of supporting industries including machinery and metalworking. In recent years Kobe has experienced remarkable development in its cluster of medical research institutes and corporations (especially in the field of regenerative medicine), computational science technology driven by supercomputers, and disaster risk reduction.

Regional Industries

The capital of Hyogo Prefecture, Kobe is one of Japan’s principal ports and grew during the period of Japan’s modernization. Around the 19th century, when this port city was an important conduit between Japan and the rest of the world, it developed a distinctly Western flavor as foreign settlements were built. The South Hyogo coastal area, with the port of Kobe at its heart, is one of Japan’s leading industrial zones and a center of heavy and chemical industries including ship-building, steel-making and metalworking. For this reason, the “electrical machinery & automotive” and “chemicals & materials” categories figure prominently in the industry profile below.

By contrast, central and northern Hyogo Prefecture are characterized by a thriving agricultural sector producing rice, vegetables, and world-renowned Kobe beef. In recent years a large area of reclaimed land has been used to create a medical industry cluster featuring cutting-edge research and incubation centers as well as offices of domestic and international companies. This area is still developing as a global medical industry hub, especially in the field of regenerative medicine.

Hyogo Prefecture: Industry Profile

- **Commerces**: 2.9%
- **ICT**: 1.9%
- **Electricial Machinery & automotive**: 0.5%
- **Agriculture, forestry, fisheries & food**: 8.9%
- **Leisure, tourism & sport**: 1.0%
- **Chemicals & Materials**: 2.0%
- **Finance**: 4.0%
- **Manufacturing**: 29.1%
- **Others**: 7.0%

Medicine: Regenerative Medicine and Rehabilitation

As a reconstruction project following the Great Hanshin and Awaji Earthquake in 1995, Kobe has promoted the “medical industry city concept” in the aim of developing a cluster of medical research institutes and corporations. Research facilities such as the RIKEN Center for Developmental Biology (CDB) and the Institute of Biomedical Research and Innovation (IBRI), which conducts translational research, have been established on Port Island, an area of reclaimed land between central Kobe and Kobe Airport. These facilities are engaged in world-leading research on regenerative medicine and other fields, including the world’s first use of iPS cells for a retina sheet transplant.

By 2020 the Japanese government plans to install an exascale supercomputer 100 times more powerful than the K Computer at AICS (at a total project cost of around 130 billion yen). Further developments in computational science and graphics capability are eagerly anticipated.

Disaster Risk Reduction

The Disaster Reduction and Human Renovation Institution has been to establish in Kobe to commemorate the 1995 Great Hanshin and Awaji Earthquake, ensure that experiences and lessons from the disaster are passed on to future generations, and to provide a focal point for domestic and international efforts to reduce disaster risk.

As part of a worldwide network of disaster risk reduction centers, the institute conducts a wide range of research into disasters and their prevention and reduction, covering not only earthquakes and tsunamis, but also other phenomena such as sudden downsours causing extensive damage.

Recent Trends in Regional Industry and Research in Kobe and Hyogo Prefecture

**Medicine: Regenerative Medicine and Rehabilitation**

Kobe is a thriving center of research and development for computational science and the graphics technologies that utilize advanced computational techniques. The K Computer, located in the RIKEN Advanced Institute for Computational Science (AICS) on Port Island, is at the heart of this work. The K Computer was ranked No.1 in the world for computational capability in 2011. These technologies are being utilized in many fields in Kobe. Examples include a heart simulator that is helping to devise new heart disease treatments, screening of new candidate agents in the drug discovery process, and new product development for local manufacturing industries.

By 2020 the Japanese government plans to install an exascale supercomputer 100 times more powerful than the K Computer at AICS (at a total project cost of around 130 billion yen). Further developments in computational science and graphics capability are eagerly anticipated.

**International Conferences Held in Kobe**

- **World Congress of the International College of Psychosomatic Medicine (ICPM)**, August 2005. Attendees: approx. 2,600
- **World Conference on Disaster Risk Reduction**, January 2005. Attendees: over 4,000
- **International Congress of Immunology (IUIS)**, August 2010. Attendees: approx. 6,000
- **World Congress of the International College of Psychosomatic Medicine (ICPM)**, August 2005. Attendees: approx. 2,600

**Main Convention Center in Kobe**

- **Kobe International Conference Center**
  - Maximum capacity: 4,000 (Convention Hall 3,800m²)
  - Access: 8 minutes by train from Kobe Airport, 20 minutes by train from Shin-Kobe Station

**International Access (from Kansai International Airport)**

- Seoul: 121 flights a week
- Hong Kong: 75 flights a week
- Singapore: 29 flights a week
- Shanghai: 94 flights a week
- Frankfurt: 7 flights a week
- Paris: 7 flights a week
- Hong Kong: 75 flights a week
- Seoul: 121 flights a week
- Dubai: 7 flights a week

**Key Facts**

- **Hyogo Prefecture**: Population: approx. 5.56 million, GRP: approx. 255 billion (US$)
- **Kobe City**: Population: approx. 1.55 million, GRP: approx. 76 billion (US$)

**Institutes**

- Kobe University
- University of Hyogo
- Konan University
- RIKEN Center for Developmental Biology
- The K Computer
- Institute of Biomedical Research and Innovation
Hiroshima (Hiroshima Prefecture)

Hiroshima is the largest population and economic hub in the Chugoku/Shikoku region. It is home to many manufacturing industries, including automaking and ship-building. As the site of the world’s first atomic bombing, Hiroshima continues to work tirelessly for world peace.

International Access

Seoul: 7 flights a week
Shanghai: 7 flights a week

Major Universities and Research Institutes

Hiroshima University
National Hospital Organization Hiroshima Nishi Medical Center
National Research Institute of Fisheries and Environment of Inland Sea, Fisheries Research Agency
Western Regional Agricultural Research Center, National Agriculture and Food Research Organization
Japan Sport Council Hiroshima Office

Regional Industries

Hiroshima, the largest city in the Chugoku/Shikoku region, and its environs are a major commercial hub and home to a flourishing manufacturing industry centered around automotive production. Other manufacturing industries in the region include aerospace, ship-building, and industrial equipment. The region has a rich natural environment, and leads Japan in oyster production with a national market share exceeding 50%.

As well as being the prefectural capital, Hiroshima City is a major center of economic activity and accounts for about half of prefectural GRP. Many manufacturers, including Mazda Motor Corporation, are headquartered in the region, which is also home to the regional offices of numerous large corporations and banks based in Tokyo and Osaka.

With an array of tourism resources including the Hiroshima Peace Memorial (Genbaku Dome or Atomic Bomb Dome) and Miyajima on the Northwest side of Hiroshima Bay, both of which are UNESCO World Heritage sites, the prefecture attracts large numbers of domestic and international visitors.

Hiroshima Prefecture: Industry Profile

Manufacturing

Hiroshima Prefecture is home to many major manufacturers including Mazda and Mitsubishi Heavy Industries, and has a high concentration of enterprises in the automotive, aerospace, industrial equipment, and ship-building fields.

In addition to development and production facilities operated by Mazda, one of Japan’s leading automotive manufacturers, Hiroshima has a wide range of automotive parts companies supporting such facilities, and these play a key role in the regional economy.

Ship-building has a long history in the region, where Japan’s oldest dock was built in the 19th century.

The Hiroshima Aircraft Industry Promotion Council has been established as a forum for collaboration among companies, university research institutes, and government agencies. Its initiatives are aimed at enhancing the productivity and technical capabilities of Hiroshima’s aircraft industry.

Sport

Hiroshima has many sports equipment manufacturers, including the headquarters of Molten Corporation and the main factory of Mikasa Corporation.

Many professional sports teams, including baseball, soccer, and basketball teams, are based in Hiroshima. The city and prefectural governments actively work to attract world sporting events in a variety of disciplines. In this context, the municipal government compiled the Hiroshima City Sports Promotion Plan and has been making efforts to develop human resources, etc.

Fisheries and Aquaculture

The Fisheries Research Agency facility in Hiroshima Prefecture works to resolve issues affecting fisheries environments and conducts research and development relating to the fishing and aquaculture industries.

Hiroshima Prefecture is Japan’s leading producer of oysters, and its thriving aquaculture industry also farms red sea bream.

Peace

As the site of the world’s first atomic bombing, Hiroshima continues to work tirelessly for world peace.

As well as the Hiroshima International Peace Summit, the city has hosted the United Nations Conference on Disarmament Issues, which will be held in Hiroshima again in 2015.

Peace initiatives are taken in many fields, including Hiroshima City University’s Research Institute for Radiation Biology and Medicine.

Main Convention Center in Hiroshima

International Conference Center Hiroshima
Maximum capacity: 1,504 (Phoenix Hall)
Access: about 50 minutes by car from Hiroshima Airport

International Conferences Held in Hiroshima

International Power Electronics Conference (IPEC), 2014. Attendees: approx. 800

International Physicians for the Prevention of Nuclear War (IPPNW) 20th World Congress, 2012. Attendees: approx. 700
Fukuoka is the main regional center for Kyushu, the westernmost of the four main islands that make up Japan. Highly regarded for its compact layout and surrounding natural areas, Fukuoka is surrounded by natural areas. Kyushu University provides the focal point for a cluster of renewable energy research centers, IT companies and content producers. It is located within two hours of other cities in Kyushu. Those cities have high concentrations of technology. Kyushu University provides a focal point for the medical industry and a cluster of other academic institutions. Renowned as one of Japan’s leading tertiary institutions, Kyushu University conducts high-level research in a wide range of fields including renewable energy and Organic Electro-Luminescence technology.

Fukuoka Prefecture: Industry Profile

Fukuoka has a well-balanced industrial profile. Many shoppers flock to the city from throughout Kyushu and East Asia, bringing prosperity to the commercial, leisure and tourism sectors.

Kyushu University provides the focal point for the medical industry and a cluster of other academic institutions. Renowned as one of Japan’s leading tertiary institutions, Kyushu University conducts high-level research in a wide range of fields including renewable energy and Organic Electro-Luminescence technology.

Fukuoka is located within two hours of other cities in Kyushu. Those cities have high concentrations of companies in the automotive, steel, iron, and medical equipment industries.

Regional Industries

Fukuoka is the main regional center for Kyushu, the westernmost of the four main islands that make up Japan. Highly regarded for its compact layout and surrounding natural areas, and in 2014 the global magazine Monocle ranked it as the 10th most liveable city in the world. As a modern city offering the benefits of a relatively uncrowded living environment, Fukuoka attracts large numbers of young people and has the highest population of 15 to 29-year-olds in any major Japanese city, creating an urban center brimming with vitality.

International Access

Seoul: 56 flights a week
Hong Kong: 21 flights a week
Shanghai: 31 flights a week
Bangkok: 14 flights a week
Singapore: 14 flights a week

Major Universities and Research Institutes

Kyushu University
Kyushu Institute of Technology
Fukuoka University
Hydrogen Energy Test and Research Center
Institute of Systems, Information Technologies and Nanotechnologies

Recent Trends in Regional Industry and Research in Fukuoka and Fukuoka Prefecture

Renewable Energy
Fukuoka city and prefecture lead the world in renewable energy research and deployment. In particular, ground-breaking research projects are under way in the region with a view to realizing the dream of commercializing hydrogen energy. Kyushu University’s Ito Campus, nicknamed the “hydrogen campus”, attracts researchers from the world’s top universities to its International Research Center for Hydrogen Energy (Hydrogenius) and other research facilities.

“Hydrogen towns”, where hydrogen energy is used to supplement electricity, are being constructed throughout the prefecture, and trials of fuel-cell vehicles and hydrogen fuelling stations are under way. Other research projects on commercial application of renewable energy and efficient energy use are being conducted throughout the region, including installation of Japan’s first floating offshore wind farm and construction of smart houses with state-of-the-art energy management systems.

IT and Content Industries

The IT and content industries have thrived in Fukuoka, which boasts one of the world’s few design schools that fuses arts with engineering (at Kyushu University) and many science and technology faculties. A cluster of video game and film production companies is forming in the city, which is making a concerted effort to support venture company start-ups in these fields.

New IT companies have arrived to set up Asian business hubs in Fukuoka in recent years, attracted by the city’s proximity to other Asian countries. In the past, most local work was done under contract for Tokyo companies, but now there is an emerging trend toward selling content developed in Fukuoka on global markets, especially in Asia.

The reputation of Fukuoka’s IT and content industry cluster has attracted the annual Ad:Tech digital marketing exhibition, held in the city since 2013. Fukuoka is one of only 10 cities in the world to host this event, and was the second city to host it in Japan, after Tokyo.

Organic Electro-Luminescence
Research is currently being conducted in Fukuoka on Organic Electro-Luminescence, which together with LED is one of the most promising technologies for the future of lighting. Kyushu University has established a cutting-edge Center for Organic Photonics and Electronics Research, OPERA, which has succeeded in developing low-cost, highly efficient light-emitting materials.

Main Convention Centers in Fukuoka

Fukuoka Convention Center
Maximum capacity: 2,700 (Main hall and multi-purpose hall)
Marine Messe Fukuoka
Largest exhibition hall: 8,000m²
Access: About 15 minutes by car from Fukuoka Airport
About 15 minutes by car from Hakata Station

International Conferences Held in Fukuoka

32nd Congress of the Société Internationale d’Urologie (SIU), September 2012. Attendees: approx. 3,200
51st Orient and Southeast Asian Lions Forum, November 2012. Attendees: approx. 20,000
13th Asian-Australasian Congress of Anaesthesiologists, May 2010. Attendees: approx. 6,500
Okinawa

Consisting of one main island and about 360 smaller islands, Okinawa is Japan’s southernmost prefecture. Its warm climate is a key attraction, drawing many tourists to one of East Asia’s most popular beach resort regions. The Okinawa Institute of Science and Technology (OIST) is the prefecture’s leading research institute, attracting high-caliber researchers and students from around the world.

Recent Trends in Regional Industry and Research in Okinawa Prefecture

International Access

Taipei: 33 flights a week
Seoul: 39 flights a week
Shanghai: 11 flights a week
Beijing: 2 flights a week
Hong Kong: 22 flights a week

Regional Industries

Located in the south of the Japanese archipelago, Okinawa Prefecture is made up of approximately 360 islands. The largest of these is Okinawa Island, site of the prefectural capital Naha and home to about 90% of the prefecture’s population of 1.4 million.

Unlike Japan’s biggest island of Honshu, Okinawa is in the subtropical zone and enjoys a warm climate all year round. Having once been an independent kingdom called Ryukyu, its culture and customs also differ from those of Honshu.

Making the most of its natural environment and history, Okinawa’s main industry is tourism. Okinawa Island, in particular, has many beaches and hotels, forming one of East Asia’s leading beach resorts. Each year approximately seven million domestic and international visitors flock to Okinawa, about 131% of whom are overseas visitors and around 80% of whom make repeat visits. Okinawa is able to use its strengths as a resort area to attract large numbers of attendees to conferences held there.

A flourishing agricultural industry also makes the most of Okinawa’s warm climate. Tropical fruit and sugarcane are among the crops cultivated, and there is a thriving fish farming industry.

The Okinawa Institute of Science and Technology (OIST) and the University of the Ryukyus are the main academic centers. Established to conduct world-class research and education, OIST is a graduate school bringing together staff with advanced knowledge from around the globe. The Institute is backed by Japan’s National Science Council, attracting high-caliber researchers and students from around the world.

OIST has around 80 doctoral students, 50 teaching staff and 200 researchers. About 70 percent of these are from abroad, giving the institute a distinctly international flavor. OIST’s programs are expanding in stages, and the institute plans to have more than 100 teaching staff by 2021.

Okinawa Prefecture: Industry Profile

Key Facts

Okinawa Prefecture
Population: approx. 1.42 million
GDP: approx. 47 billion (US$)

Okinawa Prefecture: Industry Profile

- Commerce
- Finance
- Leisure, tourism & sport
- Agriculture, forestry, fisheries & food
- Chemicals & materials
- Electrical machinery & automotive
- Medicine
- ICT

Marine Organisms

Having Japan’s only subtropical climate, Okinawa is home to distinctive and diverse organisms, which are utilized in the development of drugs and biotechnology.

Okinawa led Japan in introducing gene sequencers in its research institutes, and has developed expertise in gene analysis techniques.

In January 2014 an OIST research unit, the Marine Genomics Unit, succeeded in the world’s first simultaneous genetic sequencing of host coral and symbiotic algae. In June that year a venture company was launched to utilize OIST research results. It is offering a genetic structure data analysis service for proteins used in drug development.

OIST plans to build a new experimental facility for research on marine organisms such as coral and crown-of-thorns starfish, and Okinawa continues to develop as a global center of marine organism research.

Environment and Ecology

Okinawa is committed to protecting its beautiful natural environment, and has a high level of interest in reducing environmental burden.

Kurima Island in the isolated Myakojima island group is currently working to meet 100% of its electricity needs with renewable energy in the aim of reducing environmental load (isolated island microgrid project).

A trial is being conducted to optimize district energy use by connecting the entire island to an energy management system.

Regenerative Medicine

The University of the Ryukyus, Okinawa’s largest, has entered into a joint research contract with a major Japanese pharmaceutical company in the aim of developing regenerative medicines.

Okinawa is working to promote regenerative medicine as a next-generation industry for the prefecture and plans to establish a cell processing facility.

Efforts are under way to create advanced treatment centers utilizing the genome analysis technology of OIST and other institutions.

ICT

Cloud technology is transforming global ICT platforms and software-defined networking (SDN) technology is a game-changer for networks. Initiatives are under way in Okinawa to merge these two technologies with a view to commercializing and deploying next-generation ICT platform technologies.

Main Convention Center in Okinawa

Okinawa Convention Center
Maximum capacity: 1,841
Access: 40 minutes by car from Naha Airport

International Conferences Held in Okinawa

Held in Okinawa
7th Congress of the International Society for Hemodialysis, April 2014. Attendees: approx. 400

East Asian Biophysics Symposium (EABS), November 2006. Attendees: approx. 1,600

26th G8 Summit, July 2000

Image courtesy of OIST