



Trend of Investment in Japan (Foreign-affiliated companies in Japan)

The reputation of the Japanese market as “a huge sophisticated market” has been established. For this reason, the mainstream of investment in Japan has been mostly in establishment of marketing, sales and customer service offices. Not a few companies set up R&D centers in Japan to develop products targeting Japanese customers who demand high quality. With this strategy, the foreign companies also expect that success in the Japanese market will generate a competitive edge to succeed in other Asian markets and further in the global market. In this context, this chapter describes new trends of investments in Japan.

1. Research and Development Field

In recent years, there has been a move by foreign-affiliated companies to take advantage of Japan’s outstanding technologies and know-how by establishing R&D centers in Japan with an eye to the booming Asian market. Symbolic examples are the establishment of R&D centers in Japan by Apple of the US and Nokia of Finland,

which were announced in succession. According to the “2015 Survey of Trends in Business Activities of Foreign Affiliates” conducted by the Ministry of Economy, Trade and Industry (METI), 670 (21%) of 3,332 foreign-affiliated companies in Japan have their R&D centers in Japan. In the manufacturing industry, 310 of 594 companies, or over half (52%), have their R&D centers in Japan (as of March 2015).

“Japan as an R&D center” is generally rated high abroad. “Global Innovation Index 2016” (released by the World Intellectual Property Organization (WIPO), Cornell University and INSEAD) ranked Japan as No.1 in innovation quality among 128 countries and regions in the world. In “the Survey on Attitudes of Foreign-Affiliated Companies toward Direct Investment in Japan Report 2015” published by METI in February 2016, Japan ranked top as R&D center among investment destinations in Asia, which shows a high evaluation given to Japan by foreign companies (Chart 3-1). In a survey of foreign-affiliated companies in Japan conducted by JETRO in 2016, about 70% of the nearly 200 companies chose “high quality of R&D” as appeal of Japanese market (See P28 of Chapter 4 for detail).

**Chart 3-1 Locational competitiveness by countries and type of base
(most attractive Asian countries/regions for foreign companies as investment destination by type of business location)**

2015 survey with 222 respondent companies

Type of base	Number of respondents	Japan		China		Singapore		Hong Kong		India		Thailand		South Korea		Vietnam	
R&D base	105 companies	1	43%	4	10%	2	15%	7	2%	2	15%	11	1%	7	2%	11	1%
Regional headquarters	172 companies	2	20%	4	10%	1	42%	3	13%	9	1%	6	2%	6	2%	6	2%
Sales base	162 companies	1	32%	3	18%	2	20%	5	5%	6	4%	9	2%	8	2%	11	1%
Financial base	73 companies	3	10%	5	1%	1	51%	2	30%	-	0%	5	1%	-	0%	-	0%
Back office	69 companies	2	19%	7	4%	4	13%	5	12%	1	20%	-	0%	-	0%	-	0%
Distribution base	73 companies	4	10%	2	18%	1	36%	3	16%	10	1%	5	5%	-	0%	6	3%
Manufacturing base	90 companies	6	4%	1	46%	6	4%	12	1%	4	6%	4	6%	-	0%	2	14%

*Percentage of 222 respondent companies (including 106 companies in Japan) except for "n/a" and "not known" (82 European, 67 North American and 73 Asian companies)

*1 Respondents chose the most attractive country or region as investment destination by type of business location among 21 Asian countries/regions.

*2 The number to the left of percentage is the ranking among 21 countries.

*3 Because this is a survey on willingness to invest in Asia including Japan, votes of Asian/Oceanian companies for countries/regions where they have headquarters are not counted.

[Source] “Survey on Attitudes of Foreign-Affiliated Companies toward Direct Investment in Japan Report 2015” (Ministry of Economy, Trade and Industry (METI))

The government is also encouraging establishment of R&D centers by foreign-affiliated companies. The coming into force of the Trans-Pacific Strategic Economic Partnership (TPP) will give birth to a huge economic bloc, which it is believed will encourage international trade and investments, accelerating restructuring of the global value chain. The government aims to make Japan a global hub of trade and investments and will focus on attraction of R&D centers as part of the efforts for this purpose.

In fiscal 2012, the government established the "Act for Promotion of Japan as an Asian Business Center" that provides shortening of the time for investment procedures and other measures to attract R&D centers of global companies. From fiscal 2012 to 2015, the government improved the investment environment including the introduction and expansion of the "Points-based Preferential Immigration Treatment for Highly Skilled Foreign Professionals" that provides preferential treatment of researchers, business managers, etc. in immigration control. In fiscal 2015, the government newly introduced the "Subsidy Program for Global Innovation Centers" to support establishment of innovation centers by foreign companies. The program aims to make Japan a high-value added innovation center in the global value chain by attracting R&D departments in the field of "regenerative medicine" and "IoT (Internet of Things)" that are expected to grow (See P41 of Chapter 5 for detail).

Reflecting Japan's reputation as an R&D center and efforts of the government, there have been increased activities by foreign-affiliated companies to establish R&D centers of various fields in Japan or to pursue joint research with Japanese universities and research institutes.

(1) Examples of establishment of R&D centers by foreign-affiliated companies

A large number of foreign-affiliated companies are developing globally competitive products taking advantage of Japan's cutting-edge technologies (Chart 3-2). **Volvo Technology Japan Corporation**, the Japanese subsidiary of a leading car manufacturer with its headquarters in Sweden, established its R&D center in Tokyo in 2013 to pursue further technical innovation in the rapidly growing Asian market. At this center, the company will pursue basic research and technology development to contribute to the reduction of CO2 emissions and noise of large commercial vehicles such as buses and trucks as well as the increased efficiency in logistics and distribution businesses. Recognizing the need to further expand technical innovation and R&D in Asia in order to further develop its business in the Asian market, the second largest market for the group after Europe, the Volvo Group had been investigating multiple candidate

Chart 3-2 Recent examples of establishing R&D centers

ICT	<p>Apple (US) Apple plans to build a technical development center in a next-generation smart city, which is under construction in Yokohama, Kanagawa. The operation will start in fiscal 2016. The total floor area of the facilities will be about 25,000 square meters.</p>	ICT	<p>Nokia (Finland) An R&D center was established in Kawasaki, Kanagawa, in May 2015. The center will enhance the research and development of fifth-generation (5G) and cloud products for practical use. The results of the research in Japan will be introduced to the R&D centers in other countries. The center employs about 300 people.</p>
ICT	<p>Rocket Software (US) A global business software developer set up an office in Yokohama, Kanagawa in April 2015 to respond to the Japanese development who demand high quality. It was followed by an R&D center in Sapporo, one of the IT cluster regions in Japan where it is easy to find talented people. Rocket Software aims at expanding their share on mainframe software in Japan, one of the world's largest IT markets.</p>	Manufacturing/ Infrastructure	<p>Continental (Germany) Continental is manufacturing automobile parts. It has over 1,100 employees in Japan and more than half of them are engineers. It opened an R&D center in Toyota, Aichi in June 2015 in order to meet the demand of Japanese automobile manufacturers expanding their businesses globally. Continental positions the R&D center as one of the most important sites for maintaining the growth of business in the future.</p>
Manufacturing/ Infrastructure	<p>Caterpillar (US) Strengthened the R&D function to develop a new product for the global market at Akashi plant in Hyogo, which is a global center for manufacturing and R&D of a hydraulic shovel. Their R&D was subsidized by METI in fiscal 2014.</p>	Manufacturing/ Infrastructure	<p>BASF (Germany) The battery material R&D center was established in Amagasaki Research Incubation Center in Hyogo, in February 2014. The laboratory is the first development center in the Asia-Pacific region specializing in basic research and development of materials for lithium ion batteries and providing customer support. The lab employs 80 people.</p>
Life Science	<p>Johnson & Johnson (US) "Tokyo Science Center" was established in the International Strategic Zone in Kawasaki, Kanagawa, in August 2014. The center, equipped with a surgery simulation system, is expected to be utilized by healthcare professionals of Asian countries as a research and training facility.</p>	Life Science	<p>3M (US) 3M established a new R&D center that specializes in health care, in Sagami-hara, Kanagawa in September 2013. It aims to develop high-value products that appeals to the diversifying needs of the Japanese health-care market. The company was chosen for subsidy program for Projects Promoting Asian Site Location in Japan.</p>

[Source] Press releases by the companies and various press reports

locations for the establishment of its R&D center. After consideration of factors such as advanced technological abilities in the field of basic research, ease of joint industry-government-academia research and advantages in subsidies and taxation, the Volvo Group chose to establish its R&D center in Japan.

There are also companies responding to deregulation. In the field of regenerative medicine, a system of early approval of regenerative medicine products was introduced in November 2014, which allows earlier commercialization with certain conditions. With the establishment of one of the earliest approval systems in the world, **SanBio** moved its head office from the United States to Japan. Thus, advanced deregulation is increasing the advantage in doing R&D in Japan.

Tenneco Japan Ltd., the Japanese subsidiary of a leading car parts manufacturer based in the US, opened its technical center

in Kanagawa in April 2014. The company's main products, shock absorbers and exhaust emission control systems, are used not only in automobiles but also widely for construction equipment, agricultural machinery and ships. The center mainly conducts design and development of products for Japanese companies. Considering Japan as its strategic market, the company expanded the technical center in 2016. The company positions the center as a strategic facility to play the key role in its business with Japanese customers, and pursues rapid growth in Japan by supporting the global production systems of Japanese companies.

Some foreign-affiliated companies have established R&D centers in Japan to meet high-level requirements of Japanese consumers and are developing products targeting the Asian market. **Pierre Fabre Dermo-cosmétique Japon Co., Ltd.** ("PFDCJ"), a Japanese subsidiary of Pierre Fabre, a leading French manufacturer of

Chart 3-3 Examples of research collaborations by foreign-affiliated companies and Japanese universities/research institutes

Life science

Foreign/ Foreign-affiliated company	Japanese university, research institute, etc.	Form	Description	Announced in
Orion (Finland)	Asahi Kasei Pharma	Partnership	Partnership for R&D collaboration in the field of pain management	June 2016
Chugai Pharmaceutical (Roche Group (Switzerland))	Osaka University	Comprehensive collaboration	Comprehensive collaboration agreement for advanced research in immunology	May 2016
Eli Lilly and Company (US)	Kanazawa Medical University	Joint research	Development of a new remedy to treat intractable gastric cancer	May 2016
MSD (Merck (US))	University of Tokyo	Joint research	Strategic partnership in joint research for drug discovery	May 2016
Boehringer Ingelheim (Germany)	Kyoto University	Joint research	Development of drug to treat sensorineural hearing loss	March 2016
Sanofi (France)	University of Tokyo	Joint research	Strategic partnership in joint research for drug discovery	February 2016
AstraZeneca (UK)	National Cancer Center Japan	Joint research	Joint research on analysis of anticancer drugs	November 2015
GlaxoSmithKline (UK)	Tokyo Metropolitan Geriatric Hospital and Institute of Gerontology	Joint research	Joint research on bioelectronics	January 2015
Bayer Healthcare (Germany)	Kyoto University	Partnership	Cooperation in identification of candidates for possible joint research projects	October 2014
Pfizer (US)	University of Tokyo	Joint research	Strategic partnership in joint research for drug discovery	October 2014
AstraZeneca (UK)	Osaka University	Joint research	Drug re-profiling studies in the area of cardiovascular diseases	March 2014

ICT

Foreign/ Foreign-affiliated company	Japanese university, research institute, etc.	Form	Description	Announced in
Intel (US)	University of Tsukuba	Memorandum on regional collaboration	Intel, the university and Tsukuba city promote advanced town development through partnership projects for citizens' welfare in ICT, human resource development and other fields that are expected to contribute to the city's development	March 2016
IBM (US)	National Institute of Informatics	Research agreement	Promoting innovation through cognitive technologies (a broad range of technologies including deep learning and other AI technologies)	February 2016

Manufacturing

Foreign/ Foreign-affiliated company	Japanese university, research institute, etc.	Form	Description	Announced in
Saint-Gobain (France)	National Institute for Materials Science		They together with French National Center for Scientific Research (CNRS) opened a joint international research unit	October 2014

[Source] Press releases by the companies, universities and research institutes, and various press reports

dermatological cosmetics, has opened its first R&D center outside France, Asia Innovation Center PFDC in Tokyo. While developing products tailored to the needs of Japanese consumers, the company aims to gain access to other Asian markets that are expected to grow substantially, including South Korea, China and Taiwan, by selling products developed in Japan.

(2) Joint research by foreign-affiliated companies and Japanese universities

There are many cases of research collaborations by foreign-affiliated companies with Japanese universities, research institutes and others (Chart 3-3). Especially in the field of life science, there are initiatives to use high-level basic research of Japanese universities for drug development.

In March 2016, **Eli Lilly and Company**, a leading pharmaceutical company based in the US, announced that the company and the National Cancer Center Japan would start a research collaboration to identify biomarkers for advanced gastric cancer. The aim is the development of new treatment methods and innovative medicine in Japan. Major German pharmaceutical firm **Boehringer Ingelheim** started joint research with Kyoto University to develop medicine for hearing loss for three years from April 2016. The company has a drug discovery laboratory in Japan, which will work to develop drugs for sensorineural hearing loss for which treatment is not yet established, based on the knowledge and technology of the university.

With the progress of these research collaborations with foreign-affiliated companies, Japan expects to improve its R&D capabilities and accumulate know-how.

2. Investment from Asia / Tourism Field

Asian companies are increasingly entering into the Japanese market and expanding their business in Japan. Asian countries that used to be solely investment destinations are now activating overseas expansion taking advantage of profits and know-how gained in their fast-growing domestic market and moving to the stage of outward direct investment.

Looking at Inward FDI stock by country in 2015, share of investments from Asia has increased more than 2% from the previous year. In addition to Singapore and Hong Kong with investment stock exceeding one trillion yen, other Asian countries/regions including Taiwan, South Korea and China are also steadily increasing their presence (see Chapter 1). Furthermore, Thailand, for example, is active in investments in mega solar, represented by **Chow Steel Industries** and **Impact Electron Siam**. From India, leading IT-related companies such as **HCL Japan** and **Infosys Limited** have set up companies in Japan. In addition, promotion of investments in the IoT field in Japan was announced in the “Joint Statement on India and Japan Vision 2025” in December 2015. The increasing trend of direct investment in Japan from Asian countries is expected to accelerate in the future.

In this context and with the rapid increase in tourists visiting Japan, investment in Japan by Asian countries is especially conspicuous in tourism related businesses (Chart 3-4).

According to the Japan National Tourism Organization (JNTO), the number of tourists visiting Japan in 2015 was 19.74 million, reaching the record high for the third year in a row. Most of them are from Asia with visitors from China (4.99 million), South Korea (4 million), Taiwan (3.68 million) and Hong Kong (1.52 million) accounting for over 70%. The number of tourists visiting Japan continued to increase in 2016. Despite the tendency of a strong yen, Japan is a popular destination for foreign tourists, especially from Asia.

According to the Japan Tourism Agency, the amount spent by tourists in Japan was 24.8 trillion yen in 2015, of which the amount spent by foreign tourists increased 75.0% to 3.5 trillion yen. Repeat tourists account for about 60% of the tourists visiting Japan. They tend to visit regions outside the so-called Golden Route (Tokyo, Kyoto, Osaka, etc.), which shows that the demand of foreign tourists is both increasing and becoming more segmented.

In response to the diversification of destinations of foreign tourists, an increasing number of foreign-affiliated airlines including low-cost carriers (LCC) started service to local cities in Japan. For example, **Juneyao Airlines** (China) started with service to major airports such as Haneda, Narita and Kansai, and, with extension of its routes, opened branches at Nagoya, Naha, Fukuoka and other new destinations.

Chart 3-4 Cases of FDI into Japan in tourism

Areas	Company name	Nationality	Business	Contribution to local economy
Nationwide	Travelex Japan	UK	Operating foreign exchange business	Accumulating management knowledge, and creating jobs
Nationwide	Laox	China	Operating large-scale duty-free shops	Increasing foreign tourists, accumulating management knowledge, and creating jobs
Hokkaido	Fuson Group	China	Acquisition of a ski resort in Hokkaido	Increasing foreign tourists
Tokyo	TripAdvisor	US	Providing information on trips	Accumulating management knowledge, and increasing foreign tourists
Yamanashi	Undisclosed	China	Re-establishing a hot-spring inn	Increasing foreign tourists
Nagano	Hakuba Hotel Group	Australia	Possessing and managing hotels in Hakuba area	Increasing foreign tourists, accumulating management knowledge
Aichi	Spring Airlines	China	Operating hotels geared toward foreign tourists	Increasing foreign tourists
Osaka	USJ	US	Managing an entertainment park	Accumulating management knowledge, creating jobs, and increasing foreign tourists
Tottori	DBS Cruise Ferry	South Korea	Operating regular cargo-passenger ships	Increasing foreign tourists
Oita, Fukuoka, and others	T'way Airlines	South Korea	Setting up new sites in line with its international flights	Increasing foreign tourists

[Source] JETRO Global Trade and Investment Report 2016

Another example is **Shanghai Spring Investment Management Co. Ltd.** (China) which partnered with a Japanese company to open an urban hotel in Aichi prefecture to meet demand for hotels to accommodate the rapidly increasing foreign travelers visiting local regions.

Shanghai Zensy Corporation publishes a travel and lifestyle magazine, "Koraku," dispersing information on travel in Japan and Japanese culture targeting affluent Chinese. The company founded a corporation in Tokyo in 2015 with the aim of strengthening ties with local Japanese governments and others. **Global Tax Free** (South Korea), the top tax refund agent in Asia, positions Japan as "a promising market with a big growth potential" and opened a tax exemption service desk in Fukuoka following those in Tokyo. The expansion was pushed partly by the 2015 revision of the consumption tax exemption system for travelers visiting Japan. **Ctrip**, the biggest online travel agency in China, opened a corporation in Osaka, following a corporation in Tokyo, to meet the needs of rapidly increasing Chinese visiting Japan. In this way, many companies in a wide range of fields related to tourism are now trying to harness inbound demand.

Local regions in Japan have plentiful tourism resources and are very attractive investment targets for foreign companies. Because tourism benefits a broad range of industries from transportation and accommodation to retail, restaurant, entertainment and other services, expanding the tourism market will also revitalize regional economies.

Positioning the development of tourism into a key industry as one of the pillars of its growth strategy, the government of Japan set a new target to increase the number of foreigners visiting Japan to 40 million by 2020. Various regulations are relaxed and revised; for example, mitigation of visa requirements, revision of tour guide-interpreter systems, and response to vacation rental services. Infrastructure, such as expansion of LCC terminals at airports, will be strengthened in order to receive foreign travelers and further improve the business environment. Through these government efforts, increase of foreign tourists visiting Japan is expected to create a virtuous cycle of attracting further investments. The trend of Asian investment in Japan's tourism business is expected to continue.

3. Partnership between foreign-affiliates and Japanese companies

There are many cases where foreign companies collaborate with Japanese companies to take advantage of Japan's outstanding R&D strength and other resources. According to the "Casebook on Investment Alliances with Japanese Companies" published by the Ministry of Economy, Trade and Industry in Japan in April 2015, the number of investment alliances formed between foreign and Japanese companies has greatly increased over the last 30 years. Alliances formed in knowledge-based industries such as software and services have been also on the increase in recent years. In the survey of foreign-affiliated companies conducted by JETRO in 2016, over 70 percent of the responding companies answered they "have ever partnered with Japanese companies for their business." Foreign-affiliated companies perceive "existence of good partners" such as outstanding companies or universities as "an attractiveness of Japan." As high as 90 percent of the foreign-affiliated companies that responded to the survey were interested in partnering with

Japanese companies (See Chapter 4).

Typical benefits that foreign-affiliated companies expect to gain from partnership with Japanese companies are: (1) early access to a market in Japan, (2) early access to a market in Asia, (3) knowledge on business practice, (4) highly-skilled human resources, (5) expansion of product/service line-up, (6) improvement of operation efficiency, and (7) brand acquisition. Advantages of such partnership for Japanese companies include (8) expansion of domestic/foreign market, (9) expansion and new development of products/services and (10) improvement of product/service quality. In addition, they can expect contribution to solution of their business challenges (cost reduction, sophistication of business management methods, etc.).

Actual examples also show the intention of foreign-affiliated and Japanese companies to maximize these advantages by building complementary relationship capitalizing on their respective strengths.

Neopost (France), a major player in Shipping Solutions, and **Yamato Transport Co., Ltd.**, the Japanese leader in transportation and parcel delivery, formed a joint venture (established in May 2016) (Chart 3-5). With the increased number of double-career households and lifestyle changes in Japan, unsuccessful home deliveries represent about 20% of Yamato Transport's total parcel deliveries, which requires a solution also in terms of driver shortage and environmental impact. To address this issue, Yamato Transport aims to provide a new high-quality and convenient home delivery solution that is open for use also by other delivery companies in Japan by using Neopost's know-how to build infrastructure of lockers for the delivery of parcels. Through this project, Neopost expects to quickly gain a market in Japan, while Yamato Transport expects to improve its service and quality.

There are also moves to strengthen global competitiveness by combining product development capabilities, cost competitive production and the world's first-class global sales network of foreign-affiliated companies on one hand, and technical and brand strengths of Japanese companies on the other. **Mahindra & Mahindra (M&M)** which is a dominant conglomerate of India formed a capital tie-up with **Mitsubishi Agricultural Machinery** under **Mitsubishi Heavy Industries** in October 2015 to jointly expand their business with focus on Southeast Asia. M&M is the 5th largest agricultural machine company in the world and the 1st in agricultural tractors, but is relatively weak in rice planting machines and light-weight tractors where **Mitsubishi Agricultural Machinery** is strong. Through this tie-up, the companies intend to combine the technical strength of **Mitsubishi** and procurement and sales strength of **M&M** to enhance their operations with focus on Asia where food demand is increasing.

Similar moves are found also in the automobile sector. **Autoliv** (Sweden), the worldwide leader in airbags, and **Nissin Kogyo**, a leading supplier of braking systems in Japan, formed a joint venture (established in September 2015). They will jointly develop driving systems including automatic driving that is expected to become a growth sector, by combining **Nissin Kogyo's** technology and production capacity in brake systems with **Autoliv's** electronic control units, radar and other sensing technologies and development resources as well as its global reach and customer base.

PRISMADD, a French company manufacturing products by 3D printing for the aviation and automobile industries and **Yamaichi Special Steel of Japan** established **PRISMADD Japan**. The joint venture aims to enter the global market by combining **PRISMADD's**

3D printing technologies and design optimization know-how with Yamaichi's post-process technologies including precision machining.

The joint venture established by **ABB**, the leading power and automation group of Switzerland, and Hitachi in October 2015 combines ABB's cutting-edge high-voltage direct current (HVDC) transmission and system integration capability with Hitachi's immense credibility in the Japanese market, sales network and project management know-how. In the Japanese market that demands high reliability, the companies intend to contribute to higher resilience of power transmission systems to support the introduction of natural energy that is expected to increase, and

thereby support the electricity system reform in Japan.

As described above, foreign-affiliated and Japanese companies, based on the assessment of their respective superiority in R&D, production, sales, service and other functions, are building win-win relationships to enjoy benefits gained from each other with an eye to global business development. For Japanese companies, such partnership with foreign companies is one of the powerful options to help advance technologies, develop new products, expand sales channels in Japan and abroad and expand their business to foreign countries.

Chart 3-5 Examples of collaboration (joint venture, capital tie-up) between foreign-affiliated and Japanese companies

Foreign-affiliated company	Japanese company	Field	Form	Summary Key strength of the foreign and Japanese companies in ()	Announced in
PRISMADD (France)	Yamaichi Special Steel	Manufacturing	Joint venture	Production and processing using 3D printing technology for the aviation and other sectors (Foreign-affiliated: preceding process ×Japanese: post-process)	January 2016
Neopost (France)	Yamato Transport	Service	Joint venture	Lockers for the delivery of parcels accessible for other industry players (Foreign-affiliated: new service ×Japanese: network and know-how)	January 2016
LY.com (China)	H.I.S.	Service	Joint venture	Planning and sales of products for Foreigners visiting Japan (Foreign-affiliated: customer transfer ×Japanese: tourism products)	November 2015
ABB (Switzerland)	Hitachi, Ltd.	Energy	Joint venture	High-voltage direct current (HVDC) business for Japanese market (Foreign-affiliated: cutting-edge technology ×Japanese: sales network and project management know-how)	October 2015
Spark Energy (US)	eREX	Energy	Joint venture	Power retailing (Foreign-affiliated: know-how of new service ×Japanese: network)	October 2015
Johnson Controls (US)	Hitachi, Ltd.	Manufacturing	Joint venture	Manufacturing and sales of air-conditioning products (Foreign-affiliated: technology and overseas sales channel ×Japanese: technology and network)	October 2015
Autoliv (Sweden)	Nissin Kogyo	Manufacturing	Joint venture	Development, design, manufacturing and sales of brake systems (Foreign-affiliated: technical strength and customer base ×Japanese: technical strength and production capacity)	September 2015
Mahindra & Mahindra (India)	Mitsubishi Heavy Industries	Manufacturing	Capital tie-up	Partnership in agricultural machinery (Foreign-affiliated: overseas sales channel ×Japanese: technology)	May 2015
Air Liquide (France)	Toyota Tsusho	Energy	Joint venture	Supply of hydrogen gas for fuel-cell vehicles (installation and operation of hydrogen stations) (Foreign-affiliated: know-how of new service ×Japanese: network)	October 2013
Amgen (US)	Astellas Pharma	Life science	Strategic tie-up, Joint venture	Development and sales of medical products (joint development and commercialization) (Foreign-affiliated: innovative medical products ×Japanese: know-how and network)	May 2013
GE (US) and Safran (France)	Nippon Carbon	Manufacturing	Joint venture	Manufacture and sales of a material (silicon carbide (SiC) continuous fiber) for next-generation aircraft engine components (Foreign-affiliated: overseas sales channel ×Japanese: cutting-edge technology)	February 2012

[Source] Press releases by the companies and various press reports