

JAPANESE INDUSTRY AND POLICY NEWS

May 2019

LEGISLATION AND POLICY NEWS

Roadmap for Promoting Marine Biodegradable Plastics Formulated

As a specific effort for overcoming the plastic waste issue, the Ministry of Economy, Trade and Industry (METI) formulated the Roadmap for Popularizing Development and Introduction of Marine Biodegradable Plastics and published it on May 7. This is a compilation of expected major challenges in and measures for encouraging businesses to popularize the development and introduction of marine biodegradable plastics. It unites the efforts of the public and private sectors, focusing not only on technical but also economic and institutional challenges in providing direction for developing new technologies and materials that biodegrade in the marine environment.

Major sections of the roadmap are as follows.

- (1) Implementation of technologies for commercializing such biodegradable plastics (improving the reliability of biodegradable performance by establishing ISO standards, cultivating new sources of demand, etc.)
- (2) Improvement of composite materials based on technical development (cost cutting, improving workability of composite materials, etc.)
- (3) Research and development of innovative materials (discovery of new microorganisms, adding new biodegradable performance control capability, etc.)

https://www.meti.go.jp/english/press/2019/0507_002.html

“GLocal Growth Strategy” Compiled by a Study Group

The Ministry of Economy, Trade and Industry (METI) established a GLocal Growth Strategy Study Group, aiming to: break through stereotypical ideas that have pervaded Japan, such as “no growth is expected in a society facing a population constraint;” and encourage regional cities and rural areas with a small population at the front line of the declining population issue to establish themselves as role models of achieving economic growth while facing population constraints. To this end, the study group held discussions and compiled the discussion results into a report titled “GLocal Growth Strategy” which METI released on May 15.

Championing a slogan titled “No Growth of Regional cities and Rural Areas, No Growth of Japan,” the report highlights the importance of the following points in achieving the growth of non-metropolitan areas that face population constraints:

- (1) Encourage companies located outside metropolitan areas to cultivate direct sales channels to global markets to make their business more international; and
- (2) Shift the common form of catch-up, imitative growth to radical, truly innovative growth and develop dynamism in management.

Taking these points into account, the study group compiled a variety of measures focusing on the following three points and formulated the strategy.

- (a) Exports of products by SMEs;
- (b) Exports of agricultural, forestry, and fishery products and food; and
- (c) Taking advantage of demand created by overseas visitors to Japan.

https://www.meti.go.jp/english/press/2019/0515_001.html

The Guide for SDG Business Management Compiled

On May 31, the Ministry of Economy, Trade and Industry (METI) announced that it had prepared “The Guide for SDG Business Management,” explaining: approaches that companies should take in introducing SDG business management, viewpoints that investors may take in assessing companies’ such efforts and other issues. The guide has been formulated on the basis of discussion of the study group called as the SDG Management / ESG Investment Study Group that the METI inaugurated In November 2018. The guide is composed of two parts: “Part 1. SDGs – A source of value,” a section explaining Japan’s recognition of current situations concerning SDGs from a variety of viewpoints, and “Part 2. Practicing SDG business management,” a section, referring to Part 1 as a basis, describing well-organized viewpoints useful for companies in practicing SDG business management.

According to METI, they will strive to convey messages and information on the guide to people inside and outside Japan, including information on outstanding efforts of Japanese companies involving SDG business management, and will also endeavor to disseminate and popularize the guide.

https://www.meti.go.jp/english/press/2019/0531_001.html

https://www.meti.go.jp/english/press/2019/pdf/0531_001a.pdf

Manufacturers of Integrated Circuits, etc. Added as Businesses Required to Submit Prior Notification in Making Inward Direct Investment

On May 27, the government of Japan publicized the public notices of the revision of the types of businesses subject to the provisions over inward direct investment, etc. in the official gazette.

The government of Japan, bearing in mind the recent enhanced importance of consolidated cybersecurity measures and placing eyes on the need for appropriate prevention of acts that may cause conditions leading to serious damage to Japan's security, e.g., leakage of technologies of significance in terms of domestic security and damage to domestic defense-related production or technological infrastructures, decided to take necessary measures to these ends, e.g., addition of manufacturers of integrated circuits and other types of businesses to the coverage of these provisions.

https://www.meti.go.jp/english/press/2019/0527_001.html

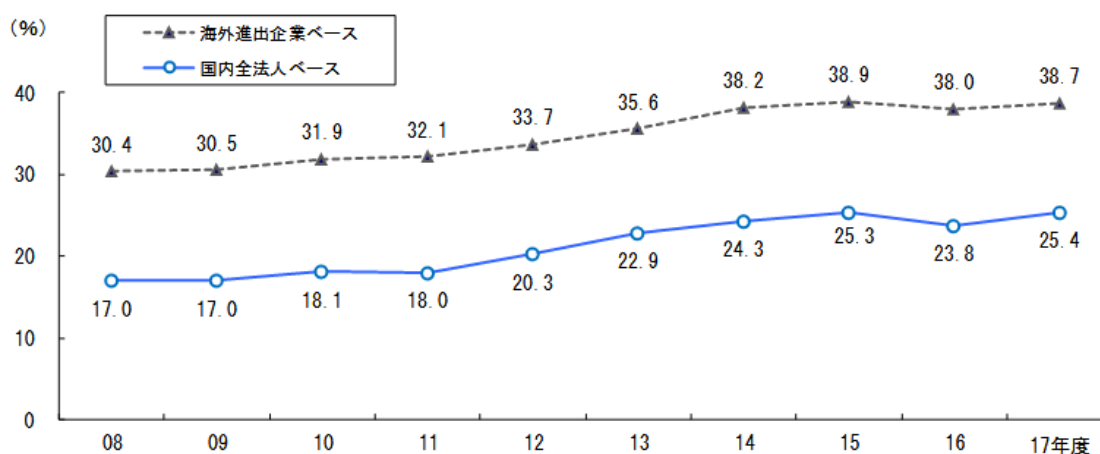
SURVEY AND BUSINESS DATA

Share of Chinese Subsidiaries in Japan's Outward FDI Continues to Decline

On May 15, the Ministry of Economy, Trade and Industry (METI) published the results of the 48th Basic Survey on Overseas Business Activities of Japanese Corporations. It reflects actual situation of Japanese overseas subsidiaries as of March 2018. The trends of Japanese overseas affiliates reported in the 48th survey can be summarized as follows:

- The total number of Japanese affiliates reached 25,034, of which 10,838 were in manufacturing sector. By region, share of China declined to 29.8% from 30.2% in the previous year. It is a decrease of five consecutive years. Shares of North America (from 13.0% to 12.9%) and Europe (from 11.6% to 11.4%) also registered slight decline.
- The total number of employees at overseas affiliates was 5.95 million people, an increase of 6.5% as compared to the previous year. All three regions of Asia (4.08 million people), North America (0.79 million people) and Europe (0.63 million people) registered increase of 3.7%, 7.4% and 15.7% respectively.
- The overseas production ratio for the manufacturing industry (based on all companies) reached a record high of 25.4%.

Overseas Production Ratio (FY2008-FY2017)
 (Above: of companies making outward FDI, Below: of all companies)



<https://www.meti.go.jp/press/2019/05/20190515004/20190515004.html>

(in Japanese)

A Giant Market Emerging in Japan's C-to-C Electronic Commerce

The Ministry of Economy, Trade and Industry (METI) conducted the FY2018 Survey of Infrastructure Development Status for Data-driven Society in Japan (E-Commerce Market Survey) to analyze the current state of the Japanese electronic commerce (EC) market and the market trends in cross-border EC among three countries, namely Japan, the U.S., and China, and released the results on May 16.

In 2018, the scale of the domestic business to consumer (B-to-C) EC market expanded to 18.0 trillion yen (up by 8.96% from 16.5 trillion yen in the previous year). In addition, the scale of the domestic business to business (B-to-B) EC market expanded in the same year to 344.2 trillion yen (up by 8.1% from 318.2 trillion yen in the previous year).

The EC ratio* was 6.22% (up by 0.43 percentage points from the previous year) for B-to-C EC, while it was 30.2% (up by 0.8 percentage points from the previous year) for B-to-B EC, showing an increasing trend and continuous progress in the computerization of commercial transactions.

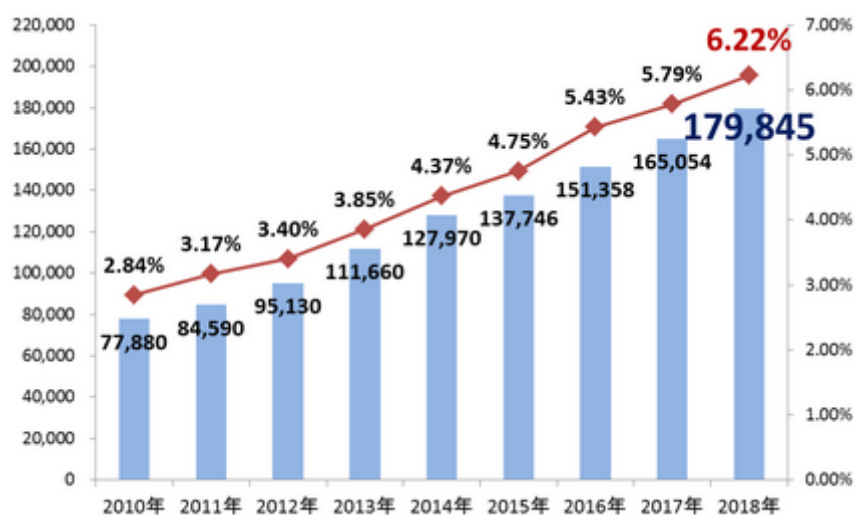
*The EC ratio in this survey refers to the ratio of the e-commerce market scale to the total amount of overall commercial transactions.

Looking at the scale of the B-to-C EC market by sector, the year-on-year growth rate in the merchandising sector increased by 8.12% from 7.45% in the previous

year and that in the service sector increased by 11.59% from 11.3% in the previous year, which uncovers that these sectors are growth markets.

The scale of the EC market via “flea market applications”, one of the types of C-to-C EC markets, dramatically increased to 639.2 billion yen (up by 32.2% from 483.5 billion yen in the previous year). This expansion and continuing trend shows that a giant market has emerged in Japan just six years since the introduction of flea market applications which facilitate C-to-C transactions in 2012.

Transition of Japan’s B-to-C Electronic Commerce Market Size
(Unit: million yen)



Bar graph in blue indicates the market size, left scale

Polygonal line graph in red indicates the ratio of EC to total, right scale

https://www.meti.go.jp/english/press/2019/0516_003.html

Enforcement Status of the Basel Convention and Domestic Laws on Import/Export of Specified Hazardous Wastes in 2018 Announced

The Ministry of Economy, Trade and Industry (METI), and the Ministry of the Environment (MOE) jointly announced on May 28 the status of enforcement of the Act on Control of Export, Import and Others of Specified Hazardous Wastes and Other Wastes (domestic law corresponding to the Basel Convention). The data for imports and exports of the specified hazardous wastes under this Act in 2018 are as follows:

Exports: 626 cases (down by 48.0%); 215,890 tons (down by 13.3%)

Imports: 858 cases (up by 7.7%); 27,910 tons (up by 37.1%)

The major countries of destination were South Korea and Belgium. The major countries of origin were Taiwan, the Philippines and Thailand.

https://www.meti.go.jp/english/press/2019/0528_001.html

COMPANY NEWS

Panasonic and Toyota Agree to Establish Joint Venture in Housing and Town Development Business

Panasonic Corporation and Toyota Motor Corporation concluded on May 9 contracts aimed toward the establishment of a new joint venture related to the town development business. Both companies aim to fuse the mobility services initiatives promoted by Toyota and the “lifestyle updates” initiatives spearheaded by Panasonic through collaboration based on the establishment of the joint venture, thereby creating new value for the entire town as a whole.

According to their joint press statement, a rapid change is expected in this business due to the accelerated deployment of IoT (Internet of Things) technologies in home appliances, household equipment, etc., as well as the evolution in mobility, such as CASE (Connected, Autonomous, Shared and Electric) and “MaaS (Mobility as a Service),” a new concept of providing services by connecting cars, public transportation and other means of transportation through IT. In the housing business, in which market competition is anticipated to intensify, the two companies will reinforce the foundation of their business through the integration of their respective housing businesses.

<https://news.panasonic.com/global/press/data/2019/05/en190509-2/en190509-2-1.pdf>

Panasonic to Collaborate with China’s GS-Solar in Photovoltaic Business

Panasonic Corporation announced on May 9 that it had reached an agreement with GS-Solar (China) Company Ltd. to collaborate in the photovoltaic business. Under the agreement, Panasonic will transfer its solar manufacturing subsidiary, Panasonic Energy Malaysia, to GS-Solar, while separating its photovoltaic research and development function in order to establish a new company with the Chinese partner. Panasonic and GS-Solar will jointly operate and invest in this new company in Japan.

GS-Solar, based in Quanzhou, Fujian, is a photovoltaic module manufacturer engaging in research, development and manufacture of heterojunction photovoltaic modules. The companies have come to this agreement as they aim to drive further development of heterojunction photovoltaic technologies through the sharing and utilization of their respective technologies and production know-how.

<https://news.panasonic.com/global/press/data/2019/05/en190509-4/en190509-4-1.pdf>

Fujitsu and Ford Collaborate to Bring Advanced Mobility Services to Global Automakers

Fujitsu and Autonomic, a wholly owned subsidiary of Ford Smart Mobility, announced on May 13 a joint collaboration to offer OEMs worldwide a fast and flexible solution to support the automotive industry's transformation to mobility-as-a-service (Maas) models. Leveraging Autonomic's expertise in cloud services for connected vehicles and Fujitsu's capabilities in technology integration and experience in the automotive space, the companies will initially deliver the Transportation Mobility Cloud (TMC) and Fujitsu systems integration services to Ford Motor Company, followed by a rollout to other automakers globally.

Autonomic's TMC gives car makers and developers the infrastructure to build customer experiences for connected vehicles. With the TMC, Autonomic delivers a flexible and secure platform that provides automakers and other developers the building blocks necessary for connected mobility applications ranging from self-driving car routing, management of large-scale fleets, transit planning and more.

<https://www.fujitsu.com/global/about/resources/news/press-releases/2019/0513-01.html>

Hitachi Automotive Systems' EV Inverter Adopted for Audi's First Mass Production EV

Hitachi Automotive Systems, Ltd. announced on May 17 that its electric vehicle (EV) inverter has been adopted by Audi for its first mass production EV, the e-tron, which went on sale in Europe from March of this year.

The Hitachi Automotive Systems inverter adopted by Audi was specifically developed and designed for EVs, and provides high power density output that

helps to maximize motor performance. Specifically, this inverter is equipped with a compact, high-efficiency power module with double-sided cooling and a built-in next-generation insulated-gate bipolar transistor (IGBT). The power density output of this inverter is said to be increased by 160% compared to the previous generation of inverters.



The inverter for the Audi *e-tron*

http://www.hitachi.eu/sites/default/files/fields/document/press-release/hiams20190517_ev_inverter_adopted_for_the_e-tron_audi_eng.pdf

New Large-scale Geothermal Power Plant Started Commercial Operation

Electric Power Development Co., Ltd. (J-Power) announced on May 20 that its Wasabizawa Geothermal Power Plant in Yuzawa city, Akita prefecture started commercial operation.



Whole view of Wasabizawa Geothermal Power Plant

Yuzawa Geothermal Power Generation Corporation, which was jointly established by J-Power, Mitsubishi Materials Corporation and Mitsubishi Gas Chemical Company, Inc., has promoted construction works of Wasabizawa Geothermal Power Plant since May 2015.

This plant has a capacity of 46,199KW. It is the first case of new operation of a large-scale geothermal power plant over 10,000kW in these 23 years in Japan.

http://www.jpowers.co.jp/english/news_release/pdf/news190520.pdf

NSG Group and Ubiquitous Energy to Jointly Develop Transparent Solar Windows

NSG Group has announced on May 21 a joint development agreement between its subsidiary and Ubiquitous Energy, a leader in transparent solar technology, located in Silicon Valley, California. The ongoing joint development work targets the development, manufacture, and integration of Ubiquitous Energy's ClearView Power technology into architectural window glass that has the potential to produce solar electricity for buildings. NSG's participation includes ongoing research and development and technical support. Ubiquitous Energy's transparent solar coating, ClearView Power, selectively absorbs and converts non-visible light (ultraviolet and infrared) to electricity while transmitting visible light.

The transparent solar coating can be applied directly to architectural windows during the standard glass manufacturing process, allowing buildings to generate their own onsite renewable energy as part of the building integrated photovoltaic (BIPV) market. Additionally, ClearView Power blocks infrared solar heat, improving the energy efficiency of buildings, which in combination with energy generation can lead to zero net energy buildings and beyond.

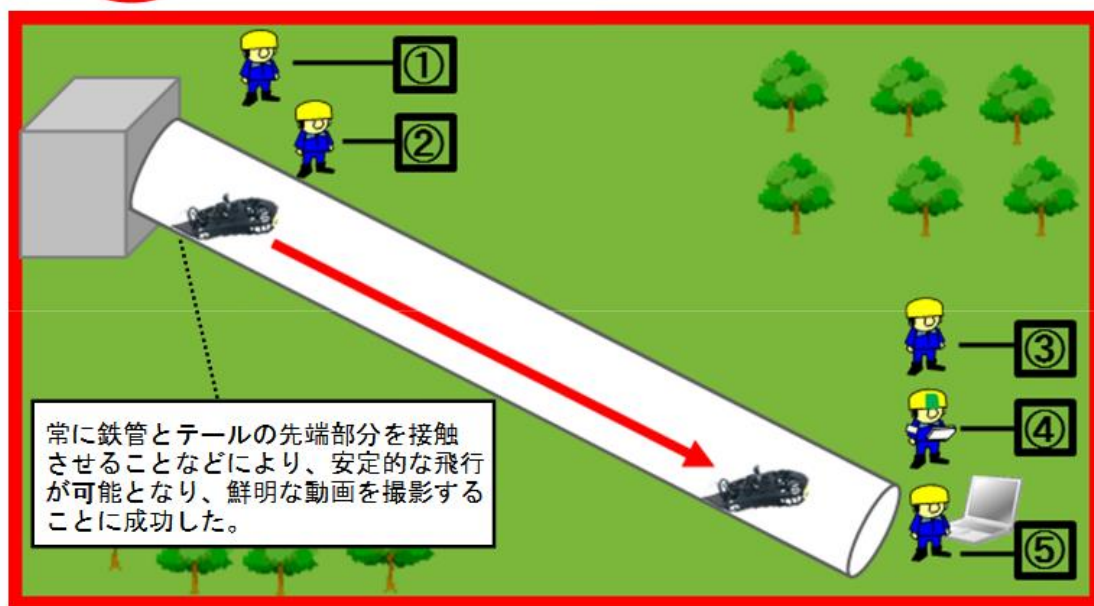
http://www.nsg.com/~media/NSG/Site%20Content/ir/Press%20Releases/2019/21May2019JointlyDevelopTransparentSolarwindows_E01.pdf

Safer and Cheaper Hydroelectric Power Plant Inspection by Drone

Kansai Electric Power Co., Inc., NJS Co., Ltd. and Kanso Co., Ltd. announced on May 24 that they had concluded a business tie-up contract for drone-using inspection of iron pipes at hydroelectric power plants. They use a special drone with stabilizing "tail" developed by NSJ.

According to a joint press release, drone inspection will contribute to improve safety of inspection work and reduce the time and cost by more than 50%.

Image of Pipe Inspection using a Special Drone with “Tail”



https://www.kepco.co.jp/corporate/pr/2019/0524_3j.html (in Japanese)

<https://youtu.be/VvB-hV6ZquE>

ADDITIONAL TOPICS

Winners of the Nippon Venture Awards Announced

On May 23, the Ministry of Economy, Trade and Industry (METI) together with the Ministry of Agriculture, Forestry and Fisheries (MAFF) selected the winners of the Nippon Venture Awards and held a commendation ceremony at the Prime Minister's Office. Under this awards program, the government of Japan honors promising, bold venture businesses that have created ground-breaking businesses.

The committee of experts examined promising venture businesses and selected the winners of the awards as below. The Prime Minister's Award winner, Preferred Networks, Inc. is a venture business committed to solving challenges in society through excellent use of artificial intelligence.

Winners of the Nippon Venture Awards

Prime Minister's Award	Preferred Networks, Inc.
METI Minister's Awards (Partnership of Venture Businesses and Large Enterprises)	RAKSUL Inc. Yamato Holdings Co., Ltd.
METI Minister's Awards (Female Entrepreneur)	READYFOR Inc.
MAFF Minister's Award (Agriculture Venture Business Award)	Farmnote Inc.
Special Jury Award	WHILL, Inc.
Special Jury Award	Uzabase, Inc.

https://www.meti.go.jp/english/press/2019/0523_001.html

<https://www.meti.go.jp/press/2019/05/20190523003/20190523003-1.pdf> (in Japanese)