

## “PLASTIC-FREE” REGULATIONS PROMOTED BY THE EU AND BUSINESS OPPORTUNITIES FOR JAPANESE COMPANIES

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### SUMMARY

- In December 2018, the European Parliament, the Council of the EU, and the European Commission reached a provisional agreement on a new draft EU directive on single-use plastic products. After being formally adopted by the Council of the EU and the European Parliament, the new directive is expected to come into effect in June 2019. By promoting ambitious environmental regulations, the EU often intends to encourage European companies to create technological innovations while aiming to expand their business opportunities. However, recycling technologies are still under development and this poses a practical issue. In addressing such an issue, the contents of the new directive are well balanced.
- Japanese companies have built up their technological capabilities in such areas as recycled materials including refill products and bioplastics. In addition, Japan has an advanced plastic waste separation and collection system. If Japanese companies provide recycling technologies and propose a separation and collection system as a package, their business opportunities will expand around the world.

### THE ISSUE OF MARINE PLASTIC WASTE IS NOW A GLOBAL AGENDA

In late January 2019, the Annual Meeting of the World Economic Forum (known as the Davos Meeting) was held in Switzerland. At the forum, the issue of marine plastic waste was discussed as one of the main themes, including a discussion session titled “Transforming the Plastics Economy” with the participation of executives of global companies. On January 16<sup>th</sup>, prior to the Davos Meeting, the Alliance to End Plastic Waste (AEPW) was launched by 28 global companies, with its founding members including P&G (U.S.), Dow Chemical (U.S.), BASF (Germany), Total (France), and Eni (Italy). From Japan, Sumitomo Chemical, Mitsubishi Chemical, and Mitsui Chemicals are among the members of the alliance.

As seen from the above, there has been growing global attention to the issue of ending the use of plastics. Japanese Prime Minister Shinzo Abe said in a speech at the Davos Meeting, “Again, in Osaka (where the G20 Summit will be held in June 2019), I would like to build a shared sense that it takes a world-wide commitment not to increase but to reduce plastics flowing into the seas.” Meanwhile, the European Union was awarded the 2019 Circular Economy prize by the World Economic Forum that organized the Davos Meeting as recognition of its work done to accelerate the transition towards a circular economy that delivers opportunities for jobs, growth, and investment while protecting the environment and reducing greenhouse gas emissions. What are the EU measures? This article will introduce the developments of the EU promoting plastic-free regulations, along with some considerations of business opportunities for Japanese companies.

## **EU REACHED A PROVISIONAL AGREEMENT ON THE NEW DIRECTIVE ON SINGLE-USE PLASTIC PRODUCTS**

In January 2018, the European Commission released the European Strategy for Plastics as part of measures for the transition to a circular economy, proposing a strategy to encourage companies to recycle plastic products in order to reduce plastic waste and prevent the dumping of waste into the oceans. Based on this European Strategy for Plastics, the European Commission proposed a new draft directive on single-use plastic products in May 2018, and the European Parliament and the Council of the EU respectively compiled draft amendments in October. On November 6<sup>th</sup>, the European Parliament, the Council of the EU, and the European Commission began tripartite talks, “trilogue”, and reached a provisional agreement on December 19<sup>th</sup>. The legislation was established at a very rapid pace. The major contents of the agreement are as follows.

- The following products that can be easily switched to alternative materials will be prohibited from being sold in the EU from 2021 onwards: plastic cutlery (spoons, forks, knives, and chopsticks), plastic plates, plastic straws, fast food containers made of expanded polystyrene, beverage containers made of expanded polystyrene, cups for beverages made of expanded polystyrene, products made from oxo-degradable plastic, and cotton bud sticks made of plastic.
- EU member states shall take the necessary measures to achieve the reduction in the consumption of plastic food containers and cups (no specific reduction targets).
- The collection rate of plastic beverage bottles shall be raised to 77% by 2025 and to 90% by 2029.
- All new beverage bottles must contain at least 25% recycled materials as an average by 2025 and at least 30% by 2030.
- Producers of tobacco filters with plastic and other products will have to pay for the necessary public infrastructure for waste collection as an extended producer responsibility (EPR) scheme.

The newly agreed directive will be published in the Official Journal of the EU after being officially adopted by the Council of the EU and the European Parliament. Then, it will take effect 20 days after its publication. The new directive was adopted at a plenary session of the European Parliament on March 27<sup>th</sup>, 2019, and the Council has also endorsed this file on May 21<sup>st</sup>. EU member states need to establish domestic legislation based on the new directive within two years of it taking effect.

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## **BACKGROUND TO THE EU'S DEVELOPMENTS TO PROMOTE PLASTIC-FREE REGULATIONS**

There could be three reasons why the EU is promoting regulations on single-use plastic products at such a rapid pace.

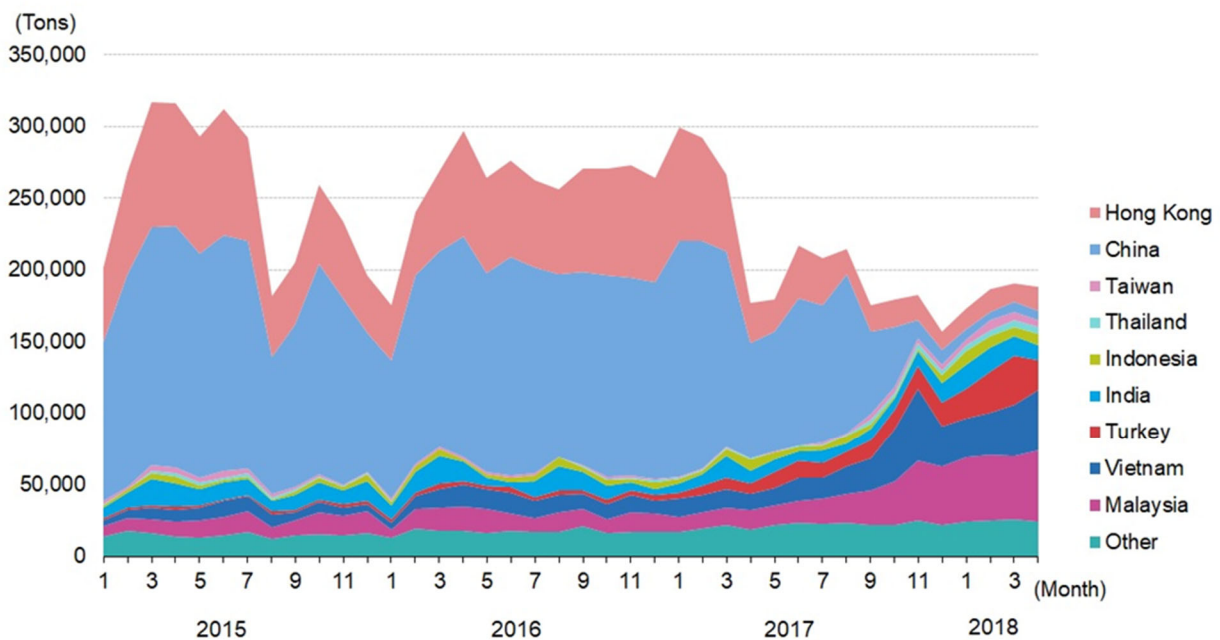
First, as already seen in the measures against climate change, the EU has a strong political will to always take the initiative in dealing with global agendas such as environmental problems and sustainability. At the G7 Summit in Charlevoix (Canada) in June 2018, the EU endorsed the “Ocean Plastics Charter” that included specific numerical targets such as achieving 100% recycling of plastic packages by 2040 (Japan and the United States did not sign it). European countries see the shift from the use of cheap and highly convenient plastic products as one of the most important challenges from the perspective of the Sustainable Development Goals (SDGs).

On the other hand, the EU aims to encourage European companies to create technological innovations and expand their business opportunities by setting ambitious environmental goals. As has been repeated, we should not ignore the fact that the EU sets strict environmental regulations to create entry barriers against products of companies in third countries that do not satisfy the regulations and globally expands such regulations to Asia and other parts of the world with the aim of supporting the global expansion of European countries. However,

in Brussels recently, many environmental protection NGOs actively lobby in EU policy-making processes, and the European Parliament affected by these lobbying activities sets more ambitious targets. Under such a structure, the industrial world tends to be thrown on the defensive.

Secondly, there are effects of China's ban on waste plastic imports effective on December 31st, 2017, as part of environmental measures. As a result, European plastic waste had nowhere to go in China. While some plastics are exported to Malaysia and Vietnam as seen in Fig. 1, these countries are expected to become unable to handle the waste shortly and the situation will not be sustainable in the long run. Amid such a situation, the expansion of the plastic-recycling market is awaited in Europe. However, many waste plastics are not cleaned up or separated sufficiently in Europe. Under such circumstances, it is not easy for the waste plastic-recycling industry to grow. In Brussels, many point out that the EU should develop necessary infrastructure such as a waste separation and collection system, in addition to recycling technologies.

**Fig. 1 Export of plastic waste for recycling from the EU to receiving countries**



Source: Created by the author based on data from Eurostat

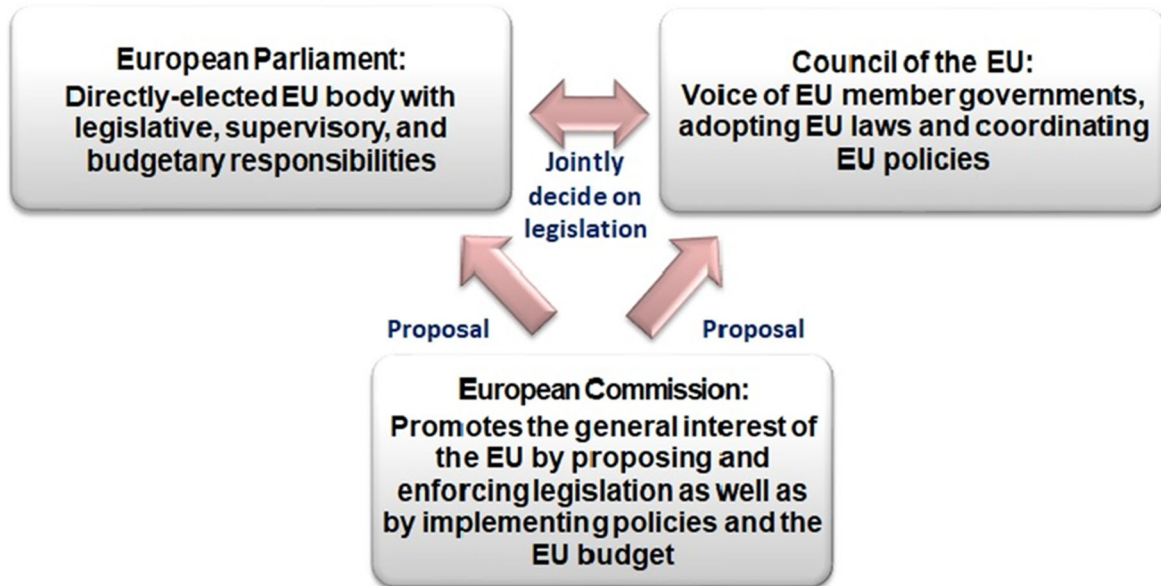
The third reason is the European parliamentary elections slated for May 23<sup>rd</sup> to 26<sup>th</sup>, 2019. In its five-year political cycle, unless a bill is adopted before the dissolution of the current European Parliament, the deliberations on the bill could be brought back to the starting point. Given this, the deadline effect has become obvious towards the spring of 2019. Usually, it takes two to three years for a bill to take effect—from the submission of the bill by the European Commission to the official adoption by the Council of the EU and the European Parliament. However, in the latest draft directive on single-use plastic products, the bill was just submitted by the European Commission in May 2018 and took effect in less than a year since then, which is unusually fast.

### THE NEW DRAFT EU DIRECTIVE IS WELL BALANCED IN A RELATIVE SENSE

When looking at EU policies, it is important not only to confirm the final draft agreement but also to follow the contents of trilogues between the European Parliament, the Council of the EU, and the European Commission, because it allows us to examine the current position of the EU and its future policy direction. In the ordinary EU policy-making process, the European Commission first proposes a draft bill. Then, the European Parliament and the Council of the EU respectively compile amendment bills based on the draft bill and adopt them. After that, the three institutions begin a trilogue. When reaching a provisional agreement after the trilogues, the European Parliament and the Council of the EU bring the draft agreement back and deliberate it again. The

agreement comes into effect only after the two bodies respectively adopt it again (Fig. 2). The EU is said to be good at negotiating global-level regulations, and this is because it is used to dealing with multilateral and interorganizational negotiations.

**Fig. 2 EU's Three Main Institutions and Policy Decision-Making Process**



Source: Created by the author based on the official website of the European Union

In addition, when it comes to EU environmental regulations, the contents of amendments made by the European Parliament always tend to be ambitious due to the initiatives of environmental political parties, strong lobbying activities by environmental protection NGOs and others, etc. On the other hand, the Council of the EU, comprising EU member states, focuses on growth and employment. While differences in stance naturally exist among member states, the Council of the EU's position is relatively close to that of the industrial world. For this reason, in trilogues, the European Parliament and the Council of the EU are often engaged in intense negotiations. However, concerning recent environmental regulations, they often reach ambitious agreements, such as higher numerical targets strongly pushed by the European Parliament. For example, the three institutions reached a provisional agreement on new CO<sub>2</sub> emission standards for new passenger cars and light commercial vehicles within the EU on December 17<sup>th</sup>, 2018, at almost the same time as the agreement on the single-use plastic directive. In the new standards, they agreed to ensure from 2030 onwards that, in the EU, a new passenger car will emit on average 37.5% less CO<sub>2</sub> compared to 2021 levels (95 g/km). This significantly reflects the claims of the European Parliament that called for a 40% reduction, while not incorporating the opinions of the industrial world.

However, the new draft EU directive on single-use plastic products includes many of the claims made by the Council of the EU, so it is said that the three institutions settled with a relatively well-balanced agreement. For example, the European Parliament requested that EU member states take measures to reduce the consumption of plastic food containers and cups and set specific reduction targets. However, this request was not included in the final draft agreement because of strong opposition from the Council of the EU. Furthermore, as for extended producer responsibility (EPR), under which makers are required to pay for waste processing and awareness-raising measures, it became the most controversial issue in the confrontation between the European Parliament that called for the setting of binding targets and the Council of the EU that demanded that they be voluntary targets. Most parts of the discussion on the issue were eventually postponed.

They reached such a draft agreement apparently due to the lack of discussion time, while this also shows that technologies for reducing the use of plastics and recycling are not sufficiently developed in Europe. As mentioned previously, whilst the EU has a strong political will to promote plastic-free regulations, there is the

practical issue that there are few alternatives to conventional plastic products and that recycling technologies are still under development. Under such circumstances, if the setting of too-ambitious regulations leads to an increased burden on European companies in EPR and other aspects, it will not make any sense in terms of international competitiveness. The EU seems to be struggling with specific measures to end or reduce the use of plastics.

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## BUSINESS OPPORTUNITIES FOR JAPANESE COMPANIES

At the G7 Charlevoix Summit in June 2018, Japan did not sign the “Ocean Plastics Charter” in step with the United States. In addition, per-capita consumption of single-use plastics in Japan is the second largest after the United States. For these and other reasons, Europe looks askance at Japan. Amid such a situation, Japan, as the host country of G20 in 2019, is hastily formulating a “Resource Circulation Strategy for Plastics” ahead of the G20 Summit to be held in Osaka in June, aiming to take the lead in global plastic measures.

In discussions by the OECD and other organizations, there are four major solutions to the plastic issue, which are: (1) waste reduction; (2) substitution; (3) design; and (4) collection and treatment. On the other hand, Japanese companies have been improving recycling technologies in refill products and other areas for a long time (related to (1) and (3)). In addition, in terms of (2), Japanese chemical makers such as Kaneka, Kuraray, and Mitsubishi Chemical etc. are working on the development and production of bioplastics and biodegradable plastics. These products have a certain reputation and are again attracting market attention.

As for (4), in discussions in Brussels and other places, it is often concluded that having an effective plastic waste separation and collection system is essential to increasing the recycling rate in Europe and that it is necessary to establish a firm system. For example, as a recycling system for PET bottles, although Germany, Denmark, and other countries have a deposit system, the system exists only in certain EU member states and municipalities. On the other hand, according to the statistics by the Council for PET Bottle Recycling of Japan, the PET bottle collection rate in Japan stood at 92.2% in 2017, which is higher than the 61.5% in Europe and the 29.2% in the United States. Behind this is long-standing measures that have lasted for 20 years under the Act on the Promotion of Sorted Garbage Collection and Recycling of Containers and Packaging (Containers and Packaging Recycling Act). The act clarifies the division of the roles played by consumers (separated disposal), municipalities (separated collection), and business operators (recycling), among others. In addition, it is common for the Japan Containers and Packaging Recycling Association to take or intermediate the duty of recycling held by business operators, and outsource the duty to recycling business operators. In this way, Japan takes the lead in terms of a “separation and collection” system.

At a session on the ocean plastic issue in the latest Davos Meeting, the importance of the following two measures were discussed: (1) mobilizing all technologies and know-how around the world; and (2) developing infrastructure for recycling. Japanese companies may have more business opportunities by providing recycling and material technologies and proposing Japan’s waste separation and collection system as a package. There could be a potential need as both technological and institutional solutions are required in Asia and Europe.

Even so, as for recycling, which lies beyond separation and collection, Japan’s plastic recycling includes thermal recycling (thermal energy recovery). In Europe, however, thermal recycling is called energy recovery and is separate from recycling. For this reason, it is impossible to simply compare between Japan and Europe. This issue could become a point of controversy at the G20 Summit in Osaka in June. Japan will need to consistently explain to European, Asian, and other countries that thermal energy recovery is one of the useful options for the reduction of marine plastics from the perspective of public hygiene because it requires least landfilling.

In recent Europe, in addition to EU policies, various countries such as Germany, France, and the United Kingdom have launched national plastic-free measures, such as the setting of recycling rate targets and tax breaks on recycled plastic products. In addition, as mentioned previously, the Alliance to End Plastic Waste (AEPW) was launched, and company consortiums have been created in various fields in Europe. For example, the Circular Economy for Flexible Packaging (CEFLEX), launched in January 2017, is a consortium of

companies to promote a circular economy in the field of flexible packaging. Now, it has more than a hundred member companies, including major materials makers and brand-owner companies. Mitsui & Co. joined the consortium in September 2018, and the company's EMEA Chemicals Division has begun activities to increase the recognition of Japan's recycling technologies and separation and collection system in Europe. In addition, the Ellen MacArthur Foundation in the UK created the Innovation Prize in October 2017 in cooperation with the World Economic Forum and awards entrepreneurs, academic societies, and others to promote progressive measures to reduce plastic waste, while implementing a project to share best practices (Fig. 3). On the other hand, the foundation started an action in October 2018 to gather signatures from governments, companies, and other bodies around the world as a global commitment to reducing plastic waste to zero. As seen in these examples, it is certain that the pressure from the market towards plastic-free measures will increase going forward in relation to SDGs and ESG investment. The global trend towards ending the use of single-use plastics cannot be ignored, and this could represent both risks and opportunities for businesses.

**Fig. 3 Organizations awarded the Innovation Prize by the Ellen MacArthur Foundation**

Circular Design Challenge Winner			Circular Materials Challenge Winners		
<b>MIWA</b> (Czech)	Delivering groceries without single-use packaging and cutting household plastic waste.		<b>University of Pittsburgh</b> (US)	Recyclable, flexible, and durable packaging created through nano-engineering.	
<b>Algramo</b> (Chile)	Access the right amount of product without the need for non-recyclable single-use sachets.		<b>Aronax Technologies Spain</b> (Spain)	A recyclable, magnetic coating that replaces multi-layered packaging.	
<b>Evoware</b> (Indonesia)	Seaweed-based packaging that replaces billions of small bits of plastics with a nutrient boost.		<b>Full Cycle Bioplastics</b> (US)	Packaging made from wood and plant waste, which can be fed to bacteria and turned into new plastic again.	
<b>Delta</b> (UK)	An edible or water-soluble sachet solution for restaurants and other hospitality businesses.		<b>VTT Technical Research Centre of Finland</b> (Finland)	Packaging that looks and feels like plastic, but is made from wood.	
<b>CupClub</b> (UK)	A returnable cup ecosystem to replace the 100 billion single-use cups and lids used every year.		<b>Fraunhofer Institute for Silicate Research</b> (Germany)	An organic coating for plastic that makes fresh food packaging compostable.	
<b>TrioCup</b> (US)	A one-piece cup that eliminates the need for plastic lids.				

Source: Created by the author based on the website of the Ellen MacArthur Foundation. <https://newplasticseconomy.org/projects/innovation-prize>.

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