## EXPLORATION 3: PART 2 - MORE ABOUT WASTE MANAGEMENT IN BERLIN

Residents of Berlin, and the rest of Germany, take recycling and waste reduction seriously. The color bin system and refundable bottle deposit may seem overwhelmingly complicated to tourists accustomed to commingling systems that combine glass, plastic, and metal waste in one recycling bin. Waste management throughout Germany is managed by a single company, Der Grüne Punkt (The Green Dot) through its collection and processing branch DSD-Duales System Holding GmbH \& Co. KG. With the founding of Der Grüne Punkt, Germany became a pioneer in the creation of a closed system economy for packaging waste collection and recycling.

Der Grüne Punkt was established in 1990 in response to the German Packaging Ordinance, which has since been amended seven times. The ordinance holds companies responsible for taking back or collection of all types of transportation waste, including transport packing (e.g., boxes, crates, filler materials, and wrap), grouped packaging (i.e., extra packaging for items sold in multiples), and sales packaging (i.e., promotional materials that are separate from the product). Der Grüne Punkt created a dual system aimed at the development of trade, consulting, and research. The DSD-Duales System Holding GmbH \& Co. KG focused on collection and processing of manufactures' waste materials (A Pioneer of Closed-Cycle Economy, 2017).

The goal of the German Packaging Ordinance was to reduce greenhouse gas emissions by converting waste to raw materials. On January 1, 2019, a new packaging law went into effect with a focus on prevention of packaging waste and recycling of packaging waste. As a member of the European Union (EU), Germany is preparing to enforce stricter regulations
and a ban on single-use plastic products like drinking straws and drink cartons from 2021 onward (Tamkin, 2019). The restrictions on plastic are a response to environmental impacts (The New German Packaging Act Is Here).
"Plastic waste is undeniably a big issue and Europeans need to act together to tackle this problem, because plastic waste ends up in our air, our soil, our oceans, and in our food," said EU Commission Vice President Frans Timmermans (CNBC/Reuters, 2018).

The EU goal is 100\% recyclable packaging or plastic materials by 2030 (European Commission, 2018). Germany has set specific material reduction goals (see Germany's Recycling Goals) that will be accomplished through reduction and replacement of materials. German industry is gearing up as "partners in change," including addressing the surge in shipping materials caused by increased dependence on online shopping. Cardboard is overtaking higher-quality paper used in print magazines and newspapers. This presents a challenge to recycling centers that resell materials to manufacturers of recycled paper.

The recycling programs of many countries including Germany have depended on the willingness of China to accept foreign "garbage." However, since January 1, 2018, China’s tough ban on twenty-four types of waste, including plastic, has had global repercussions. The two major exporters are the United States and Japan. EU countries export 87\% of their waste to China. Germany ships 837,757 tons of waste to China each year. With China’s ports closed, because of China's increasing concern about sustainability and the environmental impact of waste, the options are to turn to other countries willing to accept waste or to find new sustainable packaging materials and methods. The alternative is incineration, which negatively affects air quality and increases atmospheric greenhouse gases.

With Asian nations, like Singapore and the Philippines, stepping away from accepting trash imports, will the EU turn to Africa, stop using plastics, or turn to incineration? All of the options carry sustainability challenges.

## Evaluate

- Identify examples of sustainable practices used in waste management.
- Explain why your examples represent sustainable practices.

Add examples of sustainability actions that you identified to your Chart of Berlin's

## Sustainability Goals.

## Investigate

- Research waste management in your community.
- Identify examples of sustainable practices.
- Evaluate the effectiveness of waste management in your community.

