

EXPLORATION 1: FOOD PACKAGING

Overview

Food and household product packaging requires [renewable resources](#) and [nonrenewable resources](#) for package production and distribution. In addition to resource consumption, the process of making packing materials may have an impact on the environment (such as waste, water consumption, air pollution, and use of [nonrenewable energy resources](#)).

Main Problem

Most packaging materials become waste that may further impact the environment as litter, landfill, or water contaminants.

Guiding Question

How can reducing food packaging waste improve sustainability?

Shopping at [Original Unverpackt](#)

Arriving at [Original Unverpackt](#), Luca takes charge of locking the bikes together. Mrs. Graf collects and organizes the cloth bags and containers. “All set? Let’s go in.”

Entering *Original Unverpackt*, you notice that there are no rows of brightly colored boxes, bags, and plastic bottles. There is no plastic packaging at all! Along the walls are tall dispensers filled with cereals and grains. Refrigerated liquids in glass bottles are near the front of the store. Fresh fruits and vegetables take center stage in baskets on a center island. In the back of the store are bulk containers of personal care and household cleaning products.

Mrs. Graf places her containers one at a time on a scale. The scale prints a sticker showing the weight of the container. As each sticker is printed, Mrs. Graf affixes it to the container. Seeing your puzzled expression, she says, “When I check out, the weight of the container will be subtracted to find the weight of the product. Then I pay only for the product.”

Mrs. Graf places a container under the bottom of a dispenser of macaroni pasta. She turns the knob and starts to dispense macaroni into her container until it is almost full. Settling the contents, Mrs. Graf snaps the lid onto the container and places it in her shopping basket. Next, she selects two green peppers and three onions. Mrs. Graf carefully fills a pint-size pre-weighed container with blueberries.

“These blueberries are grown here in Berlin. I think they’ll be a nice treat for breakfast tomorrow,” says Mrs. Graf, as she adds a jar of fresh, locally made strawberry jam to her basket. “When I return the jar, it will be sent back to the farm that makes the jam. Then the jar can be cleaned, sanitized, and reused. See the [Pfand](#) symbol on the label? It means I will pay a deposit that I will get back when I return the jar.” You wonder if it is the same as the deposit return system you learned about that is available in some states in the United States.

Pulling out an egg carton from her shopping bag, Mrs. Graf moves to a display of eggs. You notice the eggs are stacked up in open trays sitting at room temperature, not in refrigeration.

“Mrs. Graf, why aren’t the eggs in a refrigerator case?” you ask.

“I was hoping you would notice,” says Mrs. Graf. “This is a common practice in Europe. In the United States, eggs are washed with hot water, dried, and exposed to a chlorinating mist to kill bacteria called [salmonella](#). In Europe, hens are vaccinated to prevent

infection. The naturally laid, untreated egg has a cuticle coating the egg shell that prevents salmonella from entering the egg. The eggs are kept at room temperature to prevent condensation that may damage the protective coating.”

Next you move to clear bins containing bread and rolls. Mrs. Graf uses tongs to lift a long, narrow loaf of bread onto a clean cloth rectangle. Wrapping the cloth around the bread she says, “This is for the garlic bread for dinner tonight.”

Looking at you and Luca, Mrs. Graf guesses that, after a morning of bike riding, you would both like something cold to drink. “Would you two like some fruit juice before we head back home?”

“Yes, please.”

“Yes. Thank you.”

You and Luca move to the front of the store. Luca helps you select a flavor and checks the bottle for a *Pfand* symbol.

As you and Luca select a drink, Mrs. Graf completes her shopping, including mixing her favorite scent into a glass bottle of organic shampoo from the dispensers in the back of the store. At the checkout, the cashier places the containers on a scale. She subtracts the container weight from the total weight, enters the weight of the container contents, and then enters the price per kilogram of the product. The price of the product is calculated as weight multiplied by price per kilogram. Mrs. Graf pays for the groceries. You and Luca sip your fruit juice, while Mrs. Graf organizes the groceries into reusable cloth bags that will fit into the bike baskets.

“Okay. Let’s go.”

More About *Original Unverpackt*

The idea for *Original Unverpackt* grew out of Germany's zero-waste movement. Using money raised through a [crowdfunding](#) campaign, Milena Glimbovski and Sara Wolf began working on their goal of opening a zero-waste store in November 2012. After two years of business planning, sourcing vendors, and designing the store, the first *Original Unverpackt* opened in February 2014 in Kiel. *Original Unverpackt* in Berlin-Kreuzberg opened on September 13, 2014, and drew a great deal of attention because zero-waste shopping fits the sustainability mind-set of Berlin residents (*Original Unverpackt*).

The most noticeable difference between *Original Unverpackt* and traditional grocery stores is how products are presented to consumers. Goods are dispensed from gravity-fed bulk dispensers instead of being displayed and sold in individual, prefilled packages made of plastic, Styrofoam, or other materials that have a high impact on the environment.

Shoppers bring their own containers. The containers are weighed and a sticker is printed for the consumer to put on the container. After the container is filled with product, the weight of the container is subtracted, and the customer pays only for the product.

Products are priced per kilogram. The cost per kilogram is the same for 20 grams as it is for 200 grams. This is different from traditional bulk quantity pricing. In traditional retail stores, the unit price of an item decreases as the quantity increases. For example, toilet paper sold in a four-roll pack costs 87 cents per roll, but the same roll of toilet paper in a bulk package of sixteen rolls costs 62 cents per roll. The consumer pays more for the sixteen rolls, while paying less per roll.

The same pricing strategy applies to cereal and other products. The buyer's quest for the lowest unit price can lead to food waste if the bulk packaged product is not consumed

prior to its expiration. The decision to abandon scaled unit pricing is a deliberate business decision to encourage sustainable consumption practices.

Like the bulk products, produce, eggs, and dairy items are locally sourced. This reduces both the economic and environmental costs associated with food because less fuel is consumed for transportation from the supplier to the store. In addition to food, *Original Unverpackt* also offers various packaging-free personal care products like soap and shampoo, as well as environmentally friendly cleaning products.

The concern for reducing packaging waste extends to how goods are shipped to the store from suppliers. *Original Unverpackt* works with suppliers to develop reusable shipping alternatives that meet public health standards for the food industry. If reusable options are not available, *Original Unverpackt* finds uses for shipping cartons to keep them out of the trash stream and landfill.

Although most customers bring their own containers, *Original Unverpackt* also sells reusable containers. The price of bottled products includes a deposit refunded when the container is returned for reuse or recycling.

Watch OU Video

View this [video on Original Unverpackt](#) by the *Transatlantic Outreach Program*.

Discussion

After viewing the pictures and the video of OU, discuss the following questions in your small groups:

- What differences from a typical grocery store do they notice?

- In what ways was the shopping trip like their own experiences? How did it differ?
- Are there any similar stores in your community?
- Identify examples of sustainability actions that Original Unverpackt has taken.

Add the examples of sustainability actions to your [*Chart of Berlin's Sustainability Goals*](#).