# Design a Reusable Packaging System for Soft Fruits

*figure 1: Dry food dispenser for Refillable Packaging*

Plastic packaging of Fast-Moving Consumer Goods (FMCGs) creates a worrying 35 kg of plastic packaging waste per person per year in the EU. Proper waste recycling still falls short in tackling this issue. Alternatively, reusable packaging can lower our plastic waste by being used for multiple rotations, avoiding waste in contrast to single use.

The Ellen MacArthur Foundation classifies reusable packaging into two types (figure 2): refillable and returnable. In returnable systems (figure 3), packaging is returned after use, while refillable systems (figure 1) involve consumers refilling their own containers. Both concepts are being explored for products like dried foods but have not yet been applied to soft fruits like strawberries or blueberries, which present unique challenges:

- The system and its packaging need to protect soft fruits from damage (falling and blunt impact).
- It must maintain food safety (i.e., refrigeration, hygiene, and preventing contamination).
- The system should be easy to use and motivate consumers to reuse their packaging for multiple rotations.

**Design Assignment**
In this project, you are invited to contribute to the Re2Pack project by creating a reusable packaging concept for soft fruits. In this project, you are asked to focus on the consumer interaction with the system. You will help reduce the plastic waste problem by focusing on the emerging topic of reusable packaging. You are free to come up with whatever design you think fits best. However, the design should:

- Address the challenges mentioned above.
- Allow reuse of packaging and be circular in its design.
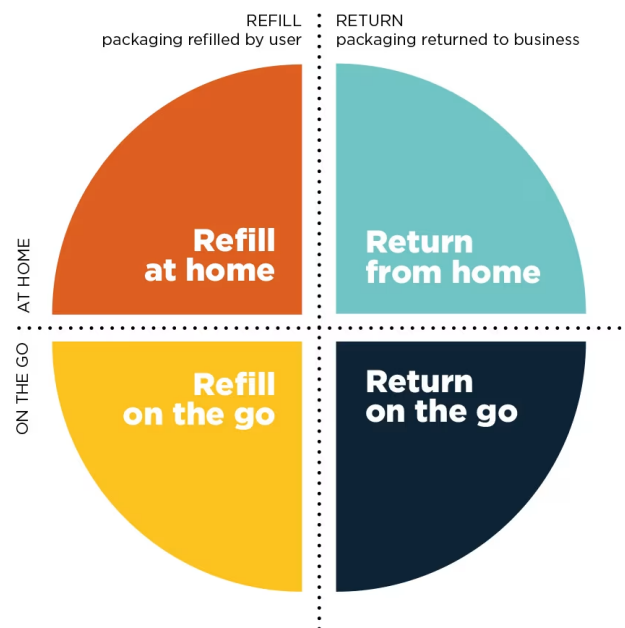- Consider how the consumer returns or handles the package after consumption.



*figure 2: Ellen MacArthur Foundation refill vs return*



*figure 3: Returnable Packaging supplier Pieter Pot*

The Re2Pack project is a large collaboration between different companies (e.g., Unilever, PLUS, Nestlé) and universities. Their expertise may be used in your project.

For questions about the project, you can contact Kyenno Scheepers at k.s.f.a.scheepers@tudelft.nl