

Improving the return rate of medical devices in a circular economy

Explore and co-design prototypes, using playful interactions and other motivational strategies.

In a circular economy, products are designed to last, and to be repaired, refurbished, and recycled after use. Many products, however, never find their way back to a refurbishment specialist, repair service, or recycling facility. They are left in drawers or dumped in a waste bin. This is particularly true for digital medical devices: small electronic products that are used when patients are recovering at home, for instance health sensors and smart pill boxes.



The Elliegrid smart pill box



The Philips Healthdot

Assignment

In this project, you will design novel motivational strategies with playful interactions for deliverers of digital health devices as well as patients. The objective is to explore, design and demonstrate prototypes that can persuade people to return a health sensor or a smart pill box after use. You will work closely with the company Games for Health (<https://gamesfor.health>), as well as the producers of the medical devices.

Background

This project is part of a European research project, with research institutes and companies across Europe. In the first weeks of the project, you will participate in several co-design pressure cookers, to iteratively explore the possibilities. The result is a series of persuasion strategies, illustrated by prototypes that are informally evaluated with stakeholders and end-users.

Requirements

You are a DfI or IPD student and have a passion for design research, co-design, playful persuasion, nudging, and persuasive technology. You want to explore these motivational strategies in a real-world context.

Start: September or October 2022.

Interested? Send an email, a short motivation, and portfolio to Jeremy Faludi (j.j.faludi@tudelft.nl)